

GRAPHIC OPERATION TERMINAL

GOT2000

GOT2000 Series

Connection Manual (Non-Mitsubishi Electric
Products 1)

For GT Works3 Version1

- GT27 model
- GT25 model
- GT25 open frame model
- GT25 wide model
- GT25 rugged model
- GT23 model
- GT21 model
- GT21 wide model

SAFETY PRECAUTIONS

(Always read these precautions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

The precautions given in this manual are concerned with this product.


In this manual, the safety precautions are ranked as "WARNING" and "CAUTION".



Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.



Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

Note that failure to observe  CAUTION may lead to a serious accident depending on the circumstances.

Make sure to observe both warnings and cautions to ensure personal safety.

Please save this manual to make it accessible when required and always forward it to the end user.

[DESIGN PRECAUTIONS]

WARNING

- Some failures of the GOT, communication unit or cable may keep the outputs on or off.
Some failures of a touch panel may cause malfunction of the input objects such as a touch switch.
An external monitoring circuit should be provided to check for output signals which may lead to a serious accident. Not doing so can cause an accident due to false output or malfunction.
 - Do not use the GOT as the warning device that may cause a serious accident.
An independent and redundant hardware or mechanical interlock is required to configure the device that displays and outputs serious warning.
Failure to observe this instruction may result in an accident due to incorrect output or malfunction.
 - When the GOT backlight has a failure, the GOT status will be as follows. Failure to observe this instruction may result in an accident due to incorrect output or malfunction.
[GT27, GT25, GT23, GS25]
The POWER LED blinks (orange/blue), the display section dims, and inputs by a touch switch are disabled.
[GT2105-Q]
The POWER LED blinks (orange/blue), and the display section dims. However, inputs by a touch switch are still available.
[GT2107-W, GT2104-R, GT2104-P, GT2103-P, GS21]
The display section dims. However, inputs by a touch switch are still available.
Even if the display section dims, inputs by a touch switch may still be available. This may cause an unintended operation of the touch switch.
For example, if an operator assumes that the display section has dimmed because of the screen save function and touches the display section to cancel the screen save, a touch switch may be activated.
The GOT backlight failure can be checked with a system signal of the GOT. (This system signal is not available on GT2107-W, GT2104-R, GT2104-P, GT2103-P, and GS21.)
-

[DESIGN PRECAUTIONS]

WARNING

- The display section of the GOT is an analog-resistive type touch panel.

When multiple points of the display section are touched simultaneously, an accident may occur due to incorrect output or malfunction.

[GT27]

Do not touch three points or more simultaneously on the display section. Doing so may cause an accident due to an incorrect output or malfunction.

[GT25, GT23, GT21, GS25, GS21]

Do not touch two points or more simultaneously on the display section. Doing so may cause a touch switch near the touched points to operate unexpectedly, or may cause an accident due to an incorrect output or malfunction.

- When programs or parameters of the controller (such as a PLC) that is monitored by the GOT are changed, be sure to reset the GOT, or turn on the unit again after shutting off the power as soon as possible.

Not doing so can cause an accident due to false output or malfunction.

- If a communication fault (including cable disconnection) occurs during monitoring on the GOT, communication between the GOT and PLC CPU is suspended and the GOT becomes inoperative.

(1) For bus connection (GT27 and GT25 only): The GOT becomes inoperative. Power on the PLC CPU again to reestablish communication.

(2) For other than bus connection: The GOT becomes inoperative.

A system where the GOT is used should be configured to perform any significant operation to the system by using the switches of a device other than the GOT on the assumption that a GOT communication fault will occur.

Not doing so can cause an accident due to false output or malfunction.

- To maintain the security (confidentiality, integrity, and availability) of the GOT and the system against unauthorized access, DoS^{*1} attacks, computer viruses, and other cyberattacks from unreliable networks and devices via network, take appropriate measures such as firewalls, virtual private networks (VPNs), and antivirus solutions.

Mitsubishi Electric shall have no responsibility or liability for any problems involving GOT trouble and system trouble by unauthorized access, DoS attacks, computer viruses, and other cyberattacks.

*1 DoS: A denial-of-service (DoS) attack disrupts services by overloading systems or exploiting vulnerabilities, resulting in a denial-of-service (DoS) state.

[DESIGN PRECAUTIONS]

CAUTION

- Do not bundle the control and communication cables with main-circuit, power or other wiring.
Run the above cables separately from such wiring and keep them a minimum of 100mm apart.
Not doing so noise can cause a malfunction.
 - Do not press the GOT display section with a pointed material as a pen or driver.
Doing so can result in a damage or failure of the display section.
 - When the GOT connects to an Ethernet network, the IP address setting is restricted according to the system configuration.
[GT27, GT25, GT23, GS25]
When a GOT2000 series model and a GOT1000 series model are on an Ethernet network, do not set the IP address 192.168.0.18 for the GOTs and the controllers on this network.
Doing so can cause IP address duplication at the GOT startup, adversely affecting the communication of the device with the IP address 192.168.0.18.
The operation at the IP address duplication depends on the devices and the system.
[GT21, GS21]
Setting the IP address (192.168.3.18) in the following system configurations can cause IP address duplication at GOT startup, adversely affecting communications of the device whose IP address is 192.168.3.18.
The operation at IP address duplication depends on the devices and the system.
When multiple GOTs connect to the Ethernet network:
Do not set the IP address (192.168.3.18) for the GOTs and the controllers in the network.
When one GOT connects to the Ethernet network:
Do not set the IP address (192.168.3.18) for the controllers other than the GOT in the network.
 - When using the Ethernet interfaces, set an IP address for each interface to access a different network.
 - Turn on the controllers and the network devices to be ready for communication before they communicate with the GOT.
Failure to do so can cause a communication error on the GOT.
 - When the GOT is subject to shock or vibration, or some colors appear on the screen of the GOT, the screen of the GOT might flicker.
-

[MOUNTING PRECAUTIONS]

WARNING

- Be sure to shut off all phases of the external power supply used by the system before mounting or removing the GOT main unit to/from the panel.
Not doing so can cause the unit to fail or malfunction.
 - Be sure to shut off all phases of the external power supply used by the system before mounting or removing the option unit onto/from the GOT. (GT27, GT25 Only)
-

[MOUNTING PRECAUTIONS]

CAUTION

- Use the GOT in the environment that satisfies the general specifications described in this manual. Not doing so can cause an electric shock, fire, malfunction or product damage or deterioration.
 - When mounting the GOT to the control panel, tighten the mounting screws in the specified torque range with Phillips cross-head screwdriver No. 2.
Undertightening can cause the GOT to drop, short circuit or malfunction.
Overtightening can cause a drop, short circuit or malfunction due to the damage of the screws or the GOT.
The specified torque range is as follows.
[GT27, GT25-W, GT2512-S, GT2510-V, GT2508-V, GT23, GT2107-W, GS25]
Specified torque range (0.36 N•m to 0.48 N•m)
[GT2505-V, GT2105-Q]
Specified torque range (0.30 N•m to 0.50 N•m)
[GT2104-R, GT2104-P, GT2103-P]
Specified torque range (0.20 N•m to 0.25 N•m)
 - When mounting a unit on the GOT, tighten the mounting screws in the specified torque range.
Undertightening can cause the GOT to drop, short circuit or malfunction.
Overtightening can cause a drop, failure or malfunction due to the damage of the screws or unit.
The specified torque range is as follows.
[GT27, GT25 (except GT25-W)]
When loading the communication unit or option unit other than wireless LAN unit to the GOT, fit it to the connection interface of the GOT and tighten the mounting screws in the specified torque range (0.36 N•m to 0.48 N•m) with a Phillips-head screwdriver No. 2.
When loading the wireless LAN unit to the GOT, fit it to the side interface of GOT and tighten the mounting screws in the specified torque range (0.10 N•m to 0.14 N•m) with a Phillips-head screwdriver No. 1.
When the GOT is installed vertically, its side interface is positioned on the bottom.
To prevent the falling of the wireless LAN communication unit from the side interface, install or remove the unit while holding it with hands.
[GT25-W, GS25]
When mounting the wireless LAN communication unit on the GOT, fit it to the wireless LAN communication unit interface and tighten the mounting screws in the specified torque range (0.10 N•m to 0.14 N•m) with a Phillips-head screwdriver No.1.
[GT2103-P]
When mounting the SD card unit on the GOT, fit it to the side of the GOT and tighten the tapping screws in the specified torque range (0.3 N•m to 0.6 N•m) with a Phillips-head screwdriver No. 2.
 - When closing the USB environmental protection cover, note the following points to ensure the IP rating.
[GT27, GT25 (except GT25-W and GT2505-V)]
Push the [PUSH] mark on the latch firmly to fix the cover to the GOT.
[GT2512-WX, GT2510-WX, GT2507-W, GT2505-V, GT2107-W, GS25]
Push the USB mark on the latch firmly to fix the cover to the GOT.
[GT2105-Q]
Tighten the lower fixing screws of the cover in the specified torque range (0.36 N•m to 0.48 N•m) to fix the cover to the GOT.
-

[MOUNTING PRECAUTIONS]

CAUTION

- Remove the protective film of the GOT.
When the user continues using the GOT with the protective film, the film may not be removed.
In addition, for the models equipped with the human sensor function, using the GOT with the protective film may cause the human sensor not to function properly.
 - For GT2512F-S, GT2510F-V, and GT2508F-V, attach an environmental protection sheet dedicated to the open frame model (sold separately) to the display section.
Or, attach a user-prepared environmental protection sheet.
Not doing so may damage or soil the GOT or cause foreign matter to enter the GOT, resulting in a failure or malfunction.
 - When installing the supplied fittings on GT2512F-S, GT2510F-V, or GT2508F-V, tighten screws in the specified torque range (0.8 N•m to 1.0 N•m).
Meld studs on the control panel to fasten the fittings.
The studs must have strength adequate to withstand a tightening torque of 0.9 N•m or more.
Make sure that no foreign matter such as welding waste is at and around the bases of the studs.
Tighten nuts on the studs in the specified torque range (0.8 N•m to 0.9 N•m) with a wrench for M4 nuts.
Undertightening a screw or nut may cause the GOT to drop, short-circuit, or malfunction.
Overtightening a screw or nut may damage it or the GOT, causing the GOT to drop, short-circuit, or malfunction.
 - Do not operate or store the GOT in the environment exposed to direct sunlight, rain, high temperature, dust, humidity, or vibrations.
 - Although GT2507T-W is ruggedized for environments such as UV rays, temperatures and vibrations, its operation is not guaranteed in all conditions and environments.
Make sure to use or store the GOT in an appropriate environment.
 - When using the GOT in the environment of oil or chemicals, use the protective cover for oil.
Failure to do so may cause failure or malfunction due to the oil or chemical entering into the GOT.
 - Do not operate the GOT with its display section frozen.
The water droplets on the display section may freeze at a low temperature.
Touch switches and other input objects may malfunction if the display section is frozen.
-


[WIRING PRECAUTIONS]

WARNING

- Be sure to shut off all phases of the external power supply used by the system before wiring.
Failure to do so may result in an electric shock, product damage or malfunctions.
-

[WIRING PRECAUTIONS]

CAUTION

- When grounding the FG terminal and LG terminal of the GOT power supply section, note the following points.
Not doing so may cause an electric shock or malfunction.
[GT27, GT25, GT23, GT2107-W, GT2105-Q, GS25, GS21]
Make sure to ground the FG terminal and LG terminal of the GOT power supply section solely for the GOT (ground resistance: 100 Ω or less, cross-sectional area of the ground cable: 2.0 mm² or more). (GT2705-V, GT25-W, GT2505-V, GT2107-W, GT2105-Q, GS25, and GS21 do not have the LG terminal.)
[GT2104-R, GT2104-P, GT2103-P]
Make sure to ground the FG terminal of the GOT power supply section with a ground resistance of 100 Ω or less. (For GT2104-PMBLS and GT2103-PMBLS, grounding is unnecessary.)
 - When tightening the terminal screws, use the following screwdrivers.
[GT27, GT25, GT23, GT2107-W, GT2105-Q, GS25, GS21]
Use a Phillips-head screwdriver No. 2.
[GT2104-R, GT2104-P, GT2103-P]
For the usable screwdrivers, refer to the following.
 GOT2000 Series User's Manual (Hardware)
 - Tighten the terminal screws of the GOT power supply section in the following specified torque range.
[GT27, GT25, GT23, GS25]
Specified torque range (0.5 N•m to 0.8 N•m)
 - For a terminal processing of a wire to the GOT power supply section, use the following terminal.
[GT27, GT25, GT23, GT2107-W, GT2105-Q, GS25, GS21]
Use applicable solderless terminals for terminal processing of a wire and tighten them with the specified torque.
Not doing so can cause a fire, failure or malfunction.
[GT2104-R, GT2104-P, GT2103-P]
Connect a stranded wire or a solid wire directly, or use a rod terminal with an insulation sleeve.
 - Correctly wire the GOT power supply section after confirming the rated voltage and terminal arrangement of the product.
Not doing so can cause a fire or failure.
 - Tighten the terminal screws of the GOT power supply section in the specified torque range.
Undertightening can cause a short circuit or malfunction.
Overtightening can cause a short circuit or malfunction due to the damage of the screws or unit.
The specified torque range is as follows.
[GT27, GT25, GT23, GT2107-W, GT2105-Q, GS25]
Specified torque range (0.5 N•m to 0.8 N•m)
[GT2104-R, GT2104-P, GT2103-P]
Specified torque range (0.22 N•m to 0.25 N•m)
[GS21]
Specified torque range (0.5 N•m to 0.6 N•m)
 - Exercise care to avoid foreign matter such as chips and wire offcuts entering the GOT.
Not doing so can cause a fire, failure or malfunction.
-

[WIRING PRECAUTIONS]

CAUTION

- Some models have an ingress prevention label on their top to prevent foreign matter, such as wire offcuts, from entering the GOT during wiring.
Do not peel this label during wiring.
Before starting system operation, be sure to peel this label because of heat dissipation.
 - Plug the communication cable into the GOT interface or the connector of the connected unit, and tighten the mounting screws and the terminal screws in the specified torque range.
Undertightening may cause a short circuit or malfunction.
Overtightening can cause a short circuit or malfunction due to the damage of the screws or unit.
 - Plug the QnA/ACPU/Motion controller (A series) bus connection cable by inserting it into the connector of the connected unit until it "clicks".
After plugging, check that it has been inserted snugly.
Not doing so can cause a malfunction due to a contact fault.
-

[TEST OPERATION PRECAUTIONS]

WARNING

- Before testing the operation of a user-created screen (such as turning on or off a bit device, changing the current value of a word device, changing the set value or current value of a timer or counter, and changing the current value of a buffer memory), thoroughly read the manual to fully understand the operating procedure.
During the test operation, never change the data of the devices which are used to perform significant operation for the system.
Doing so may cause an accident due to an incorrect output or malfunction.
-

[STARTUP/MAINTENANCE PRECAUTIONS]

WARNING

- When power is on, do not touch the terminals.
Doing so can cause an electric shock or malfunction.
 - Correctly connect the battery connector.
Do not charge, disassemble, heat, short-circuit, solder, or throw the battery into the fire.
Doing so will cause the battery to produce heat, explode, or ignite, resulting in injury and fire.
 - Before starting cleaning or terminal screw retightening, always switch off the power externally in all phases.
Not switching the power off in all phases can cause a unit failure or malfunction.
Undertightening can cause a short circuit or malfunction.
Overtightening can cause a short circuit or malfunction due to the damage of the screws or unit.
-

[STARTUP/MAINTENANCE PRECAUTIONS]

CAUTION

- Do not disassemble or modify the unit.
Doing so can cause a failure, malfunction, injury or fire.
 - Do not touch the conductive and electronic parts of the unit directly.
Doing so can cause a unit malfunction or failure.
 - The cables connected to the unit must be run in ducts or clamped.
Not doing so can cause the unit or cable to be damaged due to the dangling, motion or accidental pulling of the cables or can cause a malfunction due to a cable connection fault.
 - When unplugging the cable connected to the unit, do not hold and pull from the cable portion.
Doing so can cause the unit or cable to be damaged or can cause a malfunction due to a cable connection fault.
 - Do not drop the module or subject it to strong shock. A module damage may result.
 - Do not drop or give an impact to the battery mounted to the unit.
Doing so may damage the battery, causing the battery fluid to leak inside the battery.
If the battery is dropped or given an impact, dispose of it without using.
 - Before touching the unit, always touch grounded metals, etc. to discharge static electricity from human body, etc.
Not doing so can cause the unit to fail or malfunction.
 - Use the battery manufactured by Mitsubishi Electric Corporation.
Use of other batteries may cause a risk of fire or explosion.
 - Dispose of used battery promptly.
Keep away from children. Do not disassemble and do not dispose of in fire.
 - Be sure to shut off all phases of the external power supply before replacing the battery or using the dip switch of the terminating resistor.
Not doing so can cause the unit to fail or malfunction by static electricity.
 - Before cleaning the GOT, be sure to turn off the power.
Before cleaning, check the following items.
 - Ensure that there are no problems with the installation condition of the GOT to the control panel.
 - Ensure that there are no damages on the environmental protection sheet (not replaceable).If the environmental protection sheet peels or the cleaning solution enters between the sheet and the display section during cleaning, stop the cleaning immediately.
In such a case, do not use the GOT.
-

[TOUCH PANEL PRECAUTIONS]

CAUTION

- For the analog-resistive film type touch panels, normally the adjustment is not required.
However, the difference between a touched position and the object position may occur as the period of use elapses.
When any difference between a touched position and the object position occurs, execute the touch panel calibration.
 - When any difference between a touched position and the object position occurs, other object may be activated.
This may cause an unexpected operation due to incorrect output or malfunction.
-

[PRECAUTIONS FOR USING A DATA STORAGE]

WARNING

- Do not remove the SD card from drive A while the SD card is being accessed by the GOT, or the GOT may stop processing for about 20 seconds.
During this stop, you cannot operate the GOT, and the functions running in the background, including the screen refresh, alarm, logging, and script, also stop.
This stop may affect the system operation, causing an accident.
Before removing the SD card, check the following items.
[GT27, GT25 (except GT2505-V and GT25HS-V), GT23, GS25]
Before removing the SD card, check that the SD card access LED is off.
[GT2505-V, GT25HS-V]
Make sure to turn off the SD card access switch before removing the SD card. Not doing so may damage the SD card and files.
[GT21, GS21]
Disable the SD card access in the GOT utility, and then check that the SD card access LED is off before removing the SD card.
 - Do not remove the data storage from the file server (drive N) that is being accessed by the GOT, or the system operation may be affected.
Before removing the data storage, check the relevant system signal to make sure that the data storage is not being accessed.
-

[PRECAUTIONS FOR USING A DATA STORAGE]

CAUTION

- Do not remove the data storage from the GOT while the data storage is being accessed by the GOT, or the data storage and files may be damaged.
Before removing the data storage, check the SD card access LED, relevant system signal, or others to make sure that the data storage is not being accessed.
 - Turning off the GOT while it accesses the SD card results in damage to the SD card and files.
 - When using the GOT with an SD card inserted, check the following items.
[GT27, GT25 (except GT2505-V and GT25HS-V), GT23, GS25]
After inserting an SD card into the GOT, make sure to close the SD card cover.
Otherwise, data cannot be read or written.
[GT2505-V, GT25HS-V]
After inserting an SD card into the GOT, make sure to turn on the SD card access switch.
Otherwise, data cannot be read or written.
[GT21, GS21]
After inserting an SD card into the SD card unit, make sure to enable the SD card access in the GOT utility.
Otherwise, data cannot be read or written.
-

[PRECAUTIONS FOR USING A DATA STORAGE]

CAUTION

- When removing the SD card from the GOT, make sure to support the SD card by hand as it may pop out.
Not doing so may cause the SD card to drop from the GOT, resulting in a failure or break.
 - When inserting a USB device into a USB interface of the GOT, make sure to insert the device into the interface firmly.
Not doing so may cause a malfunction due to poor contact. (GT27, GT25, GT2107-W, GS25)
 - Before removing the data storage from the GOT, follow the procedure for removal on the utility screen of the GOT. After the successful completion dialog is displayed, remove the data storage by hand carefully.
Not doing so may cause the data storage to drop from the GOT, resulting in a failure or break.
-

[PRECAUTIONS FOR USE]

CAUTION

- Do not touch the edges of the touch panel (display section) repeatedly.
Doing so may result in a failure.
 - Do not turn off the GOT while data is being written to the storage memory (ROM) or SD card.
Doing so may corrupt the data, rendering the GOT inoperative.
 - The GOT rugged model uses the environmental protection sheet (not replaceable) with UV protection function on the front surface.
Therefore, it is possible to suppress deterioration of the touch panel or the liquid crystal display panel that may be caused by ultraviolet rays.
Note that if the rugged model is exposed to ultraviolet rays for an extended period of time, the front surface may turn yellow.
If the rugged model is likely to be exposed to ultraviolet rays for an extended period of time, it is recommended to use a UV protective sheet (option).
-

[PRECAUTIONS FOR REMOTE CONTROL]

WARNING

- Remote control is available through a network by using GOT functions, including the SoftGOT-GOT link function, the remote personal computer operation function, the VNC server function, and the GOT Mobile function.
If you remotely operate control equipment using such functions, the field operator may not notice the remote operation, leading to an accident.
In addition, a communication delay or interruption may occur depending on the network environment, and remote control of control equipment cannot be performed normally in some cases.
Before using the above functions to perform remote control, fully grasp the circumstances of the field site and ensure safety.
 - When operating the server (GOT) of the GOT Mobile function to disconnect a client, notify the operator of the client about the disconnection beforehand.
Not doing so may cause an accident.
-

[PRECAUTIONS FOR EXCLUSIVE AUTHORIZATION CONTROL]

WARNING

- Before using the GOT network interaction function to prevent simultaneous operations from multiple pieces of equipment, make sure you understand the function.
You can enable or disable the exclusive authorization control of the GOT network interaction function for each screen. (For all screens, the exclusive authorization control is disabled by default.)
Properly determine the screens for which the exclusive authorization control is required, and set the control by screen.
A screen for which the exclusive authorization control is disabled is operable simultaneously from multiple pieces of equipment. Make sure to determine the operation period for each operator, fully grasp the circumstances of the field site, and ensure safety to perform operations.
-

[DISPOSAL PRECAUTIONS]

CAUTION

- When disposing of this product, treat it as industrial waste.
When disposing of batteries, separate them from other wastes according to the local regulations. (Refer to the GOT2000 Series User's Manual (Hardware) for details of the battery directive in the EU member states.)
-

[TRANSPORTATION PRECAUTIONS]

CAUTION

- When transporting lithium batteries, make sure to treat them based on the transport regulations. (Refer to the GOT2000 Series User's Manual (Hardware) for details of the regulated models.)
 - Make sure to transport the GOT main unit and/or relevant unit(s) in the manner they will not be exposed to the impact exceeding the impact resistance described in the general specifications of this manual, as they are precision devices.
Failure to do so may cause the unit to fail.
Check if the unit operates correctly after transportation.
 - When fumigants that contain halogen materials such as fluorine, chlorine, bromine, and iodine are used for disinfecting and protecting wooden packaging from insects, they cause malfunction when entering our products.
Please take necessary precautions to ensure that remaining materials from fumigant do not enter our products, or treat packaging with methods other than fumigation (heat method).
Additionally, disinfect and protect wood from insects before packing products.
-

CONTENTS

| | |
|---|----|
| SAFETY PRECAUTIONS | 1 |
| INTRODUCTION | 21 |
| Manuals for GT Works3 | 21 |
| Abbreviations, Generic Terms, and Model Icons | 23 |

PART 1 PREPARATORY PROCEDURES FOR MONITORING

CHAPTER 1 PREPARATORY PROCEDURES FOR MONITORING 32

| | |
|--|-----------|
| 1.1 Setting the Communication Interface | 33 |
| Setting connected equipment (Channel setting) | 33 |
| GOT Ethernet Setting | 44 |
| I/F communication setting | 48 |
| Precautions | 50 |
| 1.2 Writing the Project Data onto the GOT | 51 |
| Writing the project data and OS onto the GOT | 51 |
| Checking the project data and OS writing on GOT | 52 |
| 1.3 Option Devices for the Respective Connection | 53 |
| Communication module | 53 |
| Option unit | 55 |
| Conversion cables | 55 |
| Serial Multi-Drop Connection Unit | 55 |
| Field Network Adapter Unit | 55 |
| RS-232/485 signal conversion adapter | 55 |
| Precautions when installing units on top of one another | 56 |
| 1.4 Connection Cables for the Respective Connection | 58 |
| GOT connector specifications | 58 |
| Coaxial cableconnector connection method | 60 |
| Terminating resistors of GOT | 62 |
| Setting the RS-232/485 signal conversion adaptor | 68 |
| 1.5 Verifying GOT Recognizes Connected Equipment | 69 |
| 1.6 Checking for Normal Monitoring | 71 |
| Check on the GOT | 71 |
| Confirming the communication state on the GOT side (For Ethernet connection) | 74 |
| Confirming the communication state to each station (Station monitoring function) | 76 |

PART 2 CONNECTIONS TO NON-MITSUBISHI ELECTRIC PRODUCTS

CHAPTER 2 IAI ROBOT CONTROLLER 82

| | |
|--|-----------|
| 2.1 Connectable Model List | 82 |
| 2.2 System Configuration | 86 |
| System Configuration for connecting to X-SEL, SSEL, ASEL, PSEL | 86 |
| System Configuration for connecting to PCON, ACON, SCON, ERC2 | 89 |
| System configuration for connecting to RCON | 103 |

| | | |
|--|--|------------|
| 2.3 | Connection Diagram | 106 |
| | RS-232 cable | 106 |
| | RS-422/485 cable | 109 |
| 2.4 | GOT Side Settings | 115 |
| | Setting communication interface (Communication settings) | 115 |
| | Communication detail settings | 116 |
| 2.5 | Robot Controller Side Setting | 117 |
| | Connecting to X-SEL | 117 |
| | Connecting to SSEL, ASEL, PSEL | 119 |
| | Connecting to PCON, ACON, SCON | 120 |
| | Connecting to RCON | 120 |
| | Connecting to ERC2 | 121 |
| | Station No.settings | 122 |
| 2.6 | Settable Device Range | 123 |
| 2.7 | Precautions | 123 |
| CHAPTER 3 AZBIL CONTROL EQUIPMENT | | 125 |
| 3.1 | Connectable Model List | 125 |
| 3.2 | System Configuration | 127 |
| | Connecting to DMC10 | 127 |
| | Connecting to DMC50 | 129 |
| | Connecting to SDC15, SDC25/26 or SDC35/36 | 132 |
| | Connecting to SDC20/21 | 134 |
| | Connecting to SDC30/31 | 138 |
| | Connecting to SDC40A/40B/40G | 140 |
| | Connecting to SDC45/46 | 144 |
| | Connecting to CMS, MQV, MPC, MVF, RX | 146 |
| | Connecting to CMF015, CMF050 | 148 |
| | Connecting to CML, PBC201-VN2 | 152 |
| | Connecting to AUR350C, AUR450C | 155 |
| | Connecting to CMC10B | 157 |
| | Connecting to AHC2001 | 159 |
| | Connecting to NX series | 163 |
| 3.3 | Connection Diagram | 164 |
| | RS-232 cable | 164 |
| | RS-485 cable | 166 |
| 3.4 | GOT Side Settings | 188 |
| | Setting communication interface (Communication settings) | 188 |
| | Communication detail settings | 189 |
| 3.5 | Control Equipment Side Setting | 191 |
| | Connecting to DMC10 | 191 |
| | Connecting to SDC40A/40B/40G | 192 |
| | Connecting to SDC15, SDC25/26 or SDC35/36 | 192 |
| | Connecting to SDC20/21, SDC30/31 | 193 |
| | Connecting to CMC10L | 193 |
| | Connecting to DMC50 | 195 |
| | Connecting to SDC45/46 | 195 |
| | Connecting to CMS, CMF015 | 196 |
| | Connecting to CML, CMF050 | 196 |
| | Connecting to MQV | 196 |

| | |
|----------------------------------|------------|
| Connecting to MPC | 197 |
| Connecting to PBC201-VN2 | 197 |
| Connecting to MVF | 197 |
| Connecting to AUR350C, AUR450C | 199 |
| Connecting to RX | 200 |
| Connecting to CMC10B | 200 |
| Connecting to AHC2001 CPU | 201 |
| Connecting to AHC2001 SCU | 201 |
| Station number setting | 202 |
| 3.6 Settable Device Range | 203 |
| 3.7 Precautions | 203 |

CHAPTER 4 OMRON PLC **205**

| | |
|---|------------|
| 4.1 Connectable Model List | 205 |
| 4.2 Serial Connection | 208 |
| Connecting to CPM1, CPM1A, CPM2A, CPM2C, or CQM1 | 208 |
| Connecting to CQM1H | 211 |
| Connecting to CJ1H, CJ1G, CJ1M, CJ2H, or CJ2M | 214 |
| Connecting to CP1H, CP1L, CP1E, CP2E-E, CP2E-S, or CP2E-N | 219 |
| Connecting to C200HS, C200H, C200HX, C200HG, or C200HE | 224 |
| Connecting to CS1H, CS1G, or CS1D | 227 |
| Connecting to C1000H, C2000H | 230 |
| Connecting to CV500, CV1000, CV2000, or CVM1 | 231 |
| Connection Diagram | 232 |
| GOT Side Settings | 239 |
| PLC Side Setting | 241 |
| Connecting to CPM2A, CQM1, CQM1H, C200Hα or RS-232C adapter | 242 |
| Connecting to CJ1, CJ2, CS1, CP1H, CP1L, CP1E, or CP2E | 243 |
| Connecting to CV500/CV1000/CV2000 or CVM1 | 246 |
| Connecting to connection cable | 247 |
| Connecting to rack type host link unit | 248 |
| Connecting to serial communication unit | 252 |
| Connecting to communication board | 253 |
| Connecting to serial communication board | 255 |
| Connecting to RS-422A/485 Option board | 256 |
| Connecting to RS-422A converter | 256 |
| Connecting to RS-232C&RS-485 Option Board | 257 |
| 4.3 Ethernet Connection | 258 |
| Connecting to SYSMAC CJ1, CJ2, CS1, or CP2 series | 258 |
| Connecting to NJ or NX series | 260 |
| GOT side settings | 262 |
| PLC side setting | 267 |
| Precautions | 270 |
| 4.4 Settable Device Range | 271 |

CHAPTER 5 OMRON TEMPERATURE CONTROLLER **273**

| | |
|--------------------------------------|------------|
| 5.1 Connectable Model List | 273 |
| 5.2 System Configuration | 274 |
| Connecting to the THERMAC NEO series | 274 |
| Connecting to the INPANEL NEO | 281 |

| | | |
|--|---|----------------|
| | Connecting to the E5□C series, E5□D series | 283 |
| | Connecting to the THERMAC R series | 285 |
| 5.3 | Connection Diagram | 287 |
| | RS-232 cable | 287 |
| | RS-422 cable | 289 |
| | RS-485 cable | 291 |
| 5.4 | GOT Side Settings | 297 |
| | Setting communication interface (Communication settings) | 297 |
| | Communication detail settings | 298 |
| 5.5 | Temperature Controller Side Setting | 300 |
| | Connecting E5AN, E5EN, E5CN, E5GN | 300 |
| | Connecting to E5CN(-H,-HT), E5AN(-H,-HT), E5EN(-H,-HT) | 300 |
| | Connecting E5ZN | 301 |
| | Connecting E5CC(-T,-B), E5DC, E5GC, E5EC(-T,-B), E5AC(-T) | 301 |
| | Connecting E5CD(-B), E5ED(-B) | 301 |
| | Connecting E5AR(-T), E5ER(-T) | 302 |
| | Connection to interface converter (K3SC-10) | 302 |
| | Station No. settings | 304 |
| 5.6 | Settable Device Range | 305 |
| 5.7 | Precautions | 305 |
| CHAPTER 6 KEYENCE PLC | | 307 |
| 6.1 | Connectable Model List | 307 |
| 6.2 | Serial Connection | 308 |
| | Connecting to KV-8000 or KV-7000 series | 308 |
| | Connecting to KV-5000 series | 312 |
| | Connecting to KV-3000 series | 314 |
| | Connecting to KV-1000 series | 317 |
| | Connecting to KV-700 series | 320 |
| | Connecting to KV Nano series | 323 |
| | Connection Diagram | 326 |
| | GOT Side Settings | 335 |
| | PLC Side Setting | 337 |
| 6.3 | Ethernet Connection | 341 |
| | Ethernet connection | 341 |
| | GOT side settings | 343 |
| | PLC side setting | 347 |
| 6.4 | Settable Device Range | 348 |
| CHAPTER 7 KOYO EI PLC | | 349 |
| 7.1 | Connectable Model List | 349 |
| 7.2 | System Configuration | 350 |
| | Connecting to SU-5E or SU-6B | 350 |
| | Connecting to SU-5M or SU-6M | 352 |
| | Connecting to DirectLOGIC 05 series | 355 |
| | Connecting to DirectLOGIC 06 series | 357 |
| | Connecting to D2-240, D2-250-1 or D2-260 | 360 |
| | Connecting to PZ | 362 |
| 7.3 | Connection Diagram | 364 |
| | RS-232 cable | 364 |

| | | |
|------------|--|------------|
| | RS-422 cable | 365 |
| 7.4 | GOT Side Settings | 370 |
| | Setting communication interface (Communication settings) | 370 |
| | Communication detail settings. | 371 |
| 7.5 | PLC Side Setting | 372 |
| | Connecting to SU-5E/6B | 373 |
| | Connecting to SU-5M/6M | 374 |
| | Connecting to DirectLOGIC 05 series or DirectLOGIC 06 series | 374 |
| | Connecting to DirectLOGIC 205 series | 375 |
| | Connecting to PZ Series | 375 |
| | Connecting to U-01DM | 376 |
| | Connecting to D0-DCM | 378 |
| | Connecting to D2-DCM | 378 |
| | Station No. settings | 379 |
| 7.6 | Settable Device Range | 380 |
| 7.7 | Precautions | 380 |

CHAPTER 8 JTEKT PLC 381

| | | |
|------------|--|------------|
| 8.1 | Connectable Model List | 381 |
| 8.2 | System Configuration | 382 |
| | Connecting to PC3JG, PC3JD | 382 |
| | Connecting to PC3J | 384 |
| | Connecting to PC2J (PC2J, PC2JS, or PC2JR) | 386 |
| | Connecting to PC2J (PC2JC, PC2J16P, or PC2J16PR) | 388 |
| | Connecting to PC10G | 390 |
| 8.3 | Connection Diagram | 393 |
| | RS-232 cable | 393 |
| | RS-422 cable | 395 |
| 8.4 | GOT Side Settings | 399 |
| | Setting communication interface (Communication settings) | 399 |
| | Communication detail settings. | 400 |
| 8.5 | PLC Side Setting | 401 |
| | Connecting to PC3JG, PC3JD, PC2J (PC2J, PC2JS, or PC2JR), or PC10G | 401 |
| | Connecting to PC3J | 402 |
| | Connecting to PC2JC | 403 |
| | Connecting to PC2J16P or PC2J16PR | 404 |
| | RS-232/RS-422 interface converter setting | 405 |
| | PC/CMP-LINK, 2PORT-LINK, or PC/CMP2-LINK settings | 406 |
| | ML10 settings | 408 |
| | Station number setting. | 409 |
| 8.6 | Settable Device Range | 410 |
| 8.7 | Precautions | 410 |

CHAPTER 9 SHARP PLC 411

| | | |
|------------|--|------------|
| 9.1 | Connectable Model List | 411 |
| 9.2 | System Configuration | 412 |
| | Connecting to JW-21CU or JW-22CU | 412 |
| | Connecting to JW-31CUH, JW-32CUH or JW-33CUH | 413 |
| | Connecting to JW-50CUH, JW-70CUH, JW-100CUH, or JW-100CU | 414 |
| | Connecting to Z-512J | 415 |

| | | |
|--|---|------------|
| 9.3 | Connection Diagram | 416 |
| | RS-232 cable. | 416 |
| | RS-422 cable. | 417 |
| 9.4 | GOT Side Settings | 419 |
| | Setting communication interface (Communication settings) | 419 |
| | Communication detail settings. | 420 |
| 9.5 | PLC Side Setting | 421 |
| | Connecting to JW-22CU, JW-70CUH, JW-100CUH or JW-100CU | 422 |
| | Connecting to JW-32CUH, JW-33CUH or Z-512J. | 423 |
| | Connecting to the link unit (JW-21CM) | 424 |
| | Connecting to the link unit (JW-10CM or ZW-10CM) | 426 |
| 9.6 | Settable Device Range | 428 |
| 9.7 | Precautions | 428 |
| CHAPTER 10 SHINKO TECHNOS INDICATING CONTROLLER | | 429 |
| 10.1 | Connectable Model List | 429 |
| 10.2 | System Configuration | 431 |
| | Connecting to ACS-13A, JC, JCM-33A, JIR-301-M, PCD-300, PC-900, ACD-13A, ACR-13A, or BC□2 | 431 |
| | Connecting to FCD-100, FCR-100, FCR-23A, FIR, PC-900, ACD-13A, or ACR-13A | 433 |
| | When connecting to DCL-33A Series | 434 |
| 10.3 | Connection Diagram | 436 |
| | RS-232 cable. | 436 |
| | RS-485 cable. | 437 |
| 10.4 | GOT Side Settings | 444 |
| | Setting communication interface (Communication settings) | 444 |
| | Communication detail settings. | 445 |
| 10.5 | Indicating Controller Side Setting | 446 |
| | Connecting to indicating controller | 446 |
| | Connecting to communication converter | 446 |
| | Station No. settings | 447 |
| 10.6 | Settable Device Range | 448 |
| 10.7 | Precautions | 448 |
| CHAPTER 11 CHINO CONTROLLER | | 449 |
| 11.1 | Connectable Model List | 449 |
| 11.2 | System Configuration | 450 |
| | Connecting to LT230, LT300, LT400, LT830, DZ, DB series | 450 |
| | Connecting to KP, AL3000, AH3000 series | 453 |
| | Connecting to SE3000, JU, KE3000, LE5000 series | 456 |
| | Connecting to GT120 Series | 459 |
| 11.3 | Connection Diagram | 461 |
| | RS-232 cable. | 461 |
| | RS-422 cable. | 462 |
| | RS-485 cable. | 466 |
| 11.4 | GOT Side Settings | 475 |
| | Setting communication interface (Communication settings) | 475 |
| | Communication detail settings. | 476 |
| 11.5 | Controller Side Setting | 477 |
| | Connecting to LT230, LT300 Series | 477 |
| | Connecting to LT400, LT830 Series | 478 |

| | |
|--|------------|
| Connecting to DZ1000, DZ2000 Series | 478 |
| Connecting to DB1000, DB2000 Series | 479 |
| Connecting to GT120 Series | 479 |
| Connecting to KP1000, KP2000 | 480 |
| Connecting to AL3000, AH3000 | 480 |
| Connecting to SE3000 | 481 |
| Connecting to JU | 482 |
| Connecting to KE3000 | 483 |
| Connecting to LE5000 | 484 |
| Connecting to converter SC8-10 | 485 |
| Station number setting | 486 |
| 11.6 Settable Device Range | 488 |
| 11.7 Precautions | 488 |
| | |
| CHAPTER 12 TOSHIBA PLC | 489 |
| <hr/> | |
| 12.1 Connectable Model List | 489 |
| 12.2 Serial Connection | 490 |
| Connecting to PROSEC T series | 490 |
| Connecting to PROSEC V series | 492 |
| Connection Diagram | 493 |
| GOT Side Settings | 496 |
| PLC Side Setting | 498 |
| 12.3 Ethernet Connection | 500 |
| Connecting to Unified Controller nv series | 500 |
| GOT side settings | 501 |
| PLC side setting | 504 |
| Precautions | 505 |
| 12.4 Settable Device Range | 506 |
| | |
| CHAPTER 13 SHIBAURA MACHINE PLC | 507 |
| <hr/> | |
| 13.1 Connectable Model List | 507 |
| 13.2 System Configuration | 508 |
| Connecting to TC3, TC5, TC6, TC8 | 508 |
| Connecting to TS2000, TS2100 | 509 |
| 13.3 Connection Diagram | 510 |
| RS-232 cable | 510 |
| RS-485 cable | 512 |
| 13.4 GOT Side Settings | 516 |
| Setting communication interface (Communication settings) | 516 |
| Communication detail settings | 517 |
| 13.5 PLC Side Setting | 518 |
| Connecting to TC3, TC8 series | 518 |
| Connecting to TC5 series | 518 |
| Connecting to TC6 series | 518 |
| Connecting to TS2000, TS2100 | 518 |
| 13.6 Settable Device Range | 519 |
| | |
| CHAPTER 14 PANASONIC SERVO AMPLIFIER | 521 |
| <hr/> | |
| 14.1 Connectable Model List | 521 |
| 14.2 System Configuration | 522 |

| | |
|--|------------|
| Connecting to MINAS A4, MINAS A4F, MINAS A4L series | 522 |
| Connecting to MINAS A5 series | 523 |
| 14.3 Connection Diagram | 524 |
| RS-232 cable | 524 |
| RS-485 cable | 525 |
| RS-232/RS-485 cable | 529 |
| 14.4 GOT Side Settings | 530 |
| Setting communication interface (Communication settings) | 530 |
| Communication detail settings | 531 |
| 14.5 Servo Amplifier Side Setting | 532 |
| Connecting to MINAS A4/A4F/A4L | 532 |
| Connecting to MINAS A5 | 532 |
| Station number setting | 533 |
| 14.6 Settable Device Range | 534 |
| 14.7 Precautions | 534 |
| | |
| CHAPTER 15 PANASONIC INDUSTRIAL DEVICES SUNX PLC | 535 |
| <hr/> | |
| 15.1 Connectable Model List | 535 |
| 15.2 System Configuration | 536 |
| Connecting to FP0-C16CT, FP0-C32CT, or FP0R | 536 |
| Connecting to FP1-C24C or FP1-C40C | 538 |
| Connecting to FP2 or FP2SH | 540 |
| Connecting to FP3 or FP5 | 545 |
| Connecting to FP10(S) | 547 |
| Connecting to FP10SH | 550 |
| Connecting to FP-M(C20TC) or FP-M(C32TC) | 552 |
| Connecting to FPΣ | 554 |
| Connecting to FP-X | 556 |
| Connecting to FP7 | 559 |
| Connecting to FP0H | 564 |
| System configuration for connecting to FP-XH | 566 |
| 15.3 Connection Diagram | 569 |
| RS-232 cable | 569 |
| RS-422 cable | 579 |
| RS-485 cable | 583 |
| 15.4 GOT Side Settings | 585 |
| Setting communication interface (Communication settings) | 585 |
| Communication detail settings | 586 |
| 15.5 PLC Side Setting | 588 |
| Connecting to FP0/1/2/3/5, FP0H, FP-M, FPΣ, FP-X | 588 |
| Connecting to FP7 | 590 |
| 15.6 Settable Device Range | 591 |
| | |
| APPENDIX | 593 |
| <hr/> | |
| Appendix 1 Settable Device Range | 593 |
| IAI equipment ([IAI X-SEL Controller]) | 594 |
| IAI equipment ([IAI ROBO CYLINDER]) | 619 |
| AZBIL equipment ([Azbil SDC/DMC]) | 629 |
| AZBIL equipment ([Azbil DMC50]) | 631 |
| OMRON equipment ([OMRON SYSMAC]) | 635 |

| | |
|---|-----|
| OMRON equipment ([OMRON NJ/NX]) | 639 |
| OMRON equipment ([OMRON THERMAC/INPANEL NEO]) | 640 |
| OMRON equipment ([OMRON Digital Temperature Controller]) | 644 |
| KEYENCE equipment ([KEYENCE KV-700/1000/3000/5000/7000/8000]) | 649 |
| KOYO EI equipment ([KOYO KOSTAC/DL]) | 655 |
| JTEKT equipment ([JTEKT TOYOPUC-PC]) | 660 |
| SHARP equipment ([SHARP JW]) | 665 |
| SHINKO equipment ([Shinko Technos Controller]) | 669 |
| CHINO equipment ([CHINO MODBUS device]) | 671 |
| TOSHIBA equipment ([TOSHIBA PROSEC T/V]) | 674 |
| TOSHIBA equipment ([TOSHIBA Unified Controller nv]) | 679 |
| SHIBAURA MACHINE equipment ([SHIBAURA MACHINE TCmini]) | 683 |
| PANASONIC equipment ([Panasonic MINAS A4]) | 689 |
| PANASONIC equipment ([Panasonic MINAS A5]) | 694 |
| PANASONIC IDS equipment ([Panasonic MEWNET-FP]) | 701 |
| PANASONIC IDS equipment ([Panasonic FP7]) | 705 |
| REVISIONS | 712 |
| WARRANTY | 715 |
| Intellectual Property Rights | 716 |

INTRODUCTION

Thank you for choosing Mitsubishi Electric Graphic Operation Terminal (GOT).

Before using the product, read this manual carefully and make sure you understand the functions and performance of the GOT for correct use.

📖 Manuals for GT Works3

📖 Abbreviations, Generic Terms, and Model Icons

Manuals for GT Works3

The electronic manuals related to this product are installed together with the screen design software.

If you need the printed manuals, consult your local sales office.

Manuals for GT Designer3 (GOT2000)

Point

e-Manual refers to the Mitsubishi Electric FA electronic book manuals that can be browsed using a dedicated tool.

e-Manual has the following features:

- Required information can be cross-searched in multiple manuals.
- Other manuals can be accessed from the links in the manual.
- Hardware specifications of each part can be found from the product figures.
- Pages that users often browse can be bookmarked.
- Sample programs can be copied to the engineering tool.

■ Screen design software-related manuals

| Manual name | Manual number (Model code) | Format |
|---|----------------------------|-----------------|
| GT Works3 Installation Instructions | - | PDF |
| GT Designer3 (GOT2000) Screen Design Manual | SH-081220ENG (1D7ML9) | PDF e-Manual |
| GT Converter2 Version3 Operating Manual for GT Works3 | SH-080862ENG | PDF e-Manual |
| GOT2000 Series MES Interface Function Manual for GT Works3 Version1 | SH-081228ENG | PDF e-Manual |

■ Connection manuals

| Manual name | Manual number (Model code) | Format |
|---|----------------------------|-----------------|
| GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version1 | SH-081197ENG (1D7MJ8) | PDF e-Manual |
| GOT2000 Series Connection Manual (Non-Mitsubishi Electric Products 1) For GT Works3 Version1 | SH-081198ENG | PDF e-Manual |
| GOT2000 Series Connection Manual (Non-Mitsubishi Electric Products 2) For GT Works3 Version1 | SH-081199ENG | PDF e-Manual |
| GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1 | SH-081200ENG | PDF e-Manual |
| GOT2000 Series Handy GOT Connection Manual For GT Works3 Version1 | SH-081867ENG (1D7MS9) | PDF e-Manual |
| GOT2000 Series Connection Manual (α2 Connection) for GT Works3 Version1 | JY997D52301 | PDF e-Manual |

■GT SoftGOT2000 manuals

| Manual name | Manual number (Model code) | Format |
|---|-------------------------------|-----------------|
| GT SoftGOT2000 Version1 Operating Manual | SH-081201ENG | PDF e-Manual |
| MELSOFT GT OPC UA Client Operating Manual | SH-082174ENG | PDF |

■GOT2000 series user's manuals

| Manual name | Manual number (Model code) | Format |
|---|-------------------------------|-----------------|
| GOT2000 Series User's Manual (Hardware) | SH-081194ENG (1D7MJ5) | PDF e-Manual |
| GOT2000 Series User's Manual (Utility) | SH-081195ENG (1D7MJ6) | PDF e-Manual |
| GOT2000 Series User's Manual (Monitor) | SH-081196ENG (1D7MJ7) | PDF e-Manual |

■GOT SIMPLE series user's manuals

| Manual name | Manual number | Format |
|---------------------------------|---------------|-----------------|
| GOT SIMPLE Series User's Manual | JY997D52901 | PDF e-Manual |

■Manuals related to GT Works3 add-on projects

| Manual name | Manual number (Model code) | Format |
|--|-------------------------------|-----------------|
| GT Works3 Add-on License for GOT2000 Enhanced Drive Control (Servo) Project Data Manual (Fundamentals) | SH-082072ENG (1D7MV1) | PDF e-Manual |
| GT Works3 Add-on License for GOT2000 Enhanced Drive Control (Servo) Project Data Manual (Screen Details) | SH-082074ENG (1D7MV3) | PDF e-Manual |

Manuals for GT Designer3 (GOT1000)







Refer to the Help and manuals for GT Designer3 (GOT1000).














Abbreviations, Generic Terms, and Model Icons

The following shows the abbreviations, generic terms, and model icons used in this manual.



GOT

■GOT2000 series

| Abbreviations and generic terms | | | Description | Meaning of icon | |
|---------------------------------|------------|--|---|---|------------------------------|
| | | | | Available | Unavailable |
| GT27 | GT27-X | GT2715-X | GT2715-XTBA GT2715-XTBD |  | - |
| | | GT27-S | GT2712-S | | |
| | GT2710-S | | GT2710-STBA GT2710-STBD | | |
| | GT2708-S | | GT2708-STBA GT2708-STBD | | |
| | GT27-V | GT2710-V | GT2710-VTBA GT2710-VTWA GT2710-VTBD GT2710-VTWD | | |
| | | | GT2708-V | | |
| | | GT2705-V | GT2705-VTBD | | |
| GT25 | | | All GT25 models |  | - |
| GT25-W | GT2512-WX | GT2512-WXTBD GT2512-WXTSD |  | - | |
| | | GT2510-WX | | | GT2510-WXTBD GT2510-WXTSD |
| | GT2507-W | GT2507-WTBD GT2507-WTSD | | | |
| | GT2507T-W | GT2507T-WTSD | | | |
| GT25-S | GT2512-S | GT2512-STBA GT2512-STBD | | | |
| | GT2512F-S | GT2512F-STNA GT2512F-STND | | | |
| GT25-V | GT2510-V | GT2510-VTBA GT2510-VTWA GT2510-VTBD GT2510-VTWD | | | |
| | | GT2510F-V | | | GT2510F-VTNA GT2510F-VTND |
| | GT2508-V | GT2508-VTBA GT2508-VTWA GT2508-VTBD GT2508-VTWD | | | |
| | | GT2508F-V | | | GT2508F-VTNA GT2508F-VTND |
| | GT2505-V | GT2505-VTBD | | | |
| GT25HS-V Handy GOT | GT2506HS-V | GT2506HS-VTBD |  | - | |
| | GT2505HS-V | GT2505HS-VTBD |  | - | |
| GT23 | GT23-V | GT2310-V | GT2310-VTBA GT2310-VTBD |  | - |
| | | GT2308-V | GT2308-VTBA GT2308-VTBD | | |

| Abbreviations and generic terms | | Description | Meaning of icon | | | |
|---------------------------------|----------|------------------------------|---|-------------------------|---|---|
| | | | Available | Unavailable | | |
| GT21 | | All GT21 models |  | - | | |
| GT21-W | GT2107-W | GT2107-WTBD GT2107-WTSD |  | - | | |
| GT21-Q | GT2105-Q | GT2105-QTBDS GT2105-QMBDS |  | - | | |
| GT21-R | GT2104-R | GT2104-RTBD |  | - | | |
| GT21-P | GT2104-P | GT2104-PMBD |  | - | | |
| | | GT2104-PMBDS |  | - | | |
| | | GT2104-PMBDS2 |  | - | | |
| | | GT2104-PMBLS |  | - | | |
| | GT2103-P | GT2103-PMBD |  | - | | |
| | | GT2103-PMBDS |  | - | | |
| | | GT2103-PMBDS2 |  | - | | |
| | | GT2103-PMBLS |  | - | | |
| | | GT SoftGOT2000 | | GT SoftGOT2000 Version1 |  | - |

■GOT SIMPLE series

| Abbreviations and generic terms | | Description | Meaning of icon | |
|---------------------------------|----------|--------------------------------|---|-------------|
| | | | Available | Unavailable |
| GS25 | | GS2512-WXTBD |  | - |
| GS21 | GS21-W-N | GS2110-WTBD-N GS2107-WTBD-N |  | - |
| | GS21-W | GS2110-WTBD GS2107-WTBD | | |

■GOT1000 series, GOT900 series, and GOT800 series

| Abbreviations and generic terms | | Description | Meaning of icon | |
|---------------------------------|--|------------------------------------|-----------------|-------------|
| | | | Available | Unavailable |
| GOT1000 Series | | GOT1000 Series | - | - |
| GOT900 Series | | GOT-A900 Series GOT-F900 Series | - | - |
| GOT800 Series | | GOT-800 Series | - | - |

Communication unit

| Abbreviations and generic terms | Description |
|--|--|
| Bus connection unit | GT15-QBUS GT15-QBUS2 GT15-ABUS GT15-ABUS2 GT15-75QBUSL GT15-75QBUS2L GT15-75ABUSL GT15-75ABUS2L |
| Serial communication unit | GT15-RS2-9P GT15-RS4-9S GT15-RS4-TE |
| MELSECNET/H communication unit | GT15-J71LP23-25 GT15-J71BR13 |
| CC-Link IE TSN communication unit | GT25-J71GN13-T2 |
| CC-Link IE Controller Network communication unit | GT15-J71GP23-SX |
| CC-Link IE Field Network communication unit | GT15-J71GF13-T2 |
| CC-Link communication unit | GT15-J61BT13 |
| Wireless LAN communication unit | GT25-WLAN |
| Serial multi-drop connection unit | GT01-RS4-M |
| Connection conversion adapter | GT10-9PT5S |
| Field network adapter unit | GT25-FNADP |
| Ethernet communication unit | GT25-J71E71-100 |
| RS-232/485 signal conversion adapter | GT14-RS2T4-9P |

Option unit

| Abbreviations and generic terms | Description |
|---------------------------------|--|
| Printer unit | GT15-PRN |
| Video input unit | GT27-V4-Z (A set of GT16M-V4-Z and GT27-IF1000) |
| RGB input unit | GT27-R2 GT27-R2-Z (A set of GT16M-R2-Z and GT27-IF1000) |
| Video/RGB input unit | GT27-V4R1-Z (A set of GT16M-V4R1-Z and GT27-IF1000) |
| RGB output unit | GT27-ROUT GT27-ROUT-Z (A set of GT16M-ROUT-Z and GT27-IF1000) |
| Digital video output unit | GT27-VHOUT |
| Multimedia unit | GT27-MMR-Z (A set of GT16M-MMR-Z and GT27-IF1000) |
| Video signal conversion unit | GT27-IF1000 |
| External I/O unit | GT15-DIO GT15-DIOR |
| Sound output unit | GT15-SOUT |
| SD card unit | GT21-03SDCD |

Option

| Abbreviations and generic terms | Description |
|--|---|
| SD card | NZ1MEM-2GBSD NZ1MEM-4GBSD NZ1MEM-8GBSD NZ1MEM-16GBSD L1MEM-2GBSD L1MEM-4GBSD |
| Battery | GT11-50BAT GT15-BAT |
| Protective sheet | GT27-15PSGC GT25-12WPSGC GT25-12PSGC GT25-10WPSGC GT25-10PSGC GT25-08PSGC GT21-07WPSGC GT25T-07WPSVC GT25-05PSGC GT25-05PSGC-2 GT21-05PSGC GT21-04RPSGC-UC GT21-03PSGC-UC GT21-04PSGC-UC GT27-15PSCC GT25-12WPSCC GT25-12PSCC GT25-10WPSCC GT25-10PSCC GT25-08PSCC GT25-05PSCC GT25-05PSCC-2 GT25-12PSCC-UC GT25-10PSCC-UC GT25-08PSCC-UC GT21-07WPSCC GT21-05PSCC GT21-04RPSCC-UC GT21-04PSCC-UC GT21-03PSCC-UC GT16H-60PSC GT14H-50PSC |
| Antibacterial/antiviral protective sheet | GT25-12PSAC GT25-10PSAC GT25-08PSAC |
| Environmental protection sheet | GT25F-12ESGS GT25F-10ESGS GT25F-08ESGS |
| Protective cover for oil | GT20-15PCO GT20-12PCO GT20-10PCO GT20-08PCO GT21-12WPCO GT21-10WPCO GT21-07WPCO GT25T-07WPCO GT25-05PCO GT25-05PCO-2 GT05-50PCO GT21-04RPCO GT10-30PCO GT10-20PCO |
| USB environmental protection cover | GT25-UCOV GT25-05UCOV GT21-WUCOV |

| Abbreviations and generic terms | Description |
|-----------------------------------|--|
| Stand | GT15-90STAND GT15-80STAND GT15-70STAND GT05-50STAND GT25-10WSTAND GT21-07WSTAND GT25T-07WSTAND |
| Attachment | GT15-70ATT-98 GT15-70ATT-87 GT15-60ATT-97 GT15-60ATT-96 GT15-60ATT-87 GT15-60ATT-77 GT21-04RATT-40 |
| Panel-mounted USB port extension | GT14-C10EXUSB-4S GT10-C10EXUSB-5S |
| Connector conversion box | GT16H-CNB-42S GT16H-CNB-37S GT11H-CNB-37S |
| Emergency stop switch guard cover | GT16H-60ESCOV GT14H-50ESCOV |
| Wall-mounting attachment | GT14H-50ATT |

Software

■Software related to GOT

| Abbreviations and generic terms | Description |
|--|---|
| GT Works3 | SW1DND-GTWK3-J, SW1DND-GTWK3-E, SW1DND-GTWK3-C |
| GT Designer3 Version1 | Screen design software GT Designer3 for GOT2000 and GOT1000 series |
| GT Designer3 | Screen design software for GOT2000 series included in GT Works3 |
| GT Designer3 (GOT2000) | |
| GT Designer3 (GOT1000) | Screen design software for GOT1000 series included in GT Works3 |
| Speech synthesis license | GT Works Text to Speech License (SW1DND-GTVO-M) |
| Add-on license | GT Works3 add-on license for GOT2000 enhanced drive control (servo) project data (SW1DND-GTSV-MZ) |
| GENESIS64 Advanced | GENESIS64 server application (GEN64-APP) |
| GENESIS64 Basic SCADA | GENESIS64 server application (GEN64-BASIC) |
| GENESIS64 | Generic term of GENESIS64 Advanced and GENESIS64 Basic SCADA |
| GOT Mobile function license for GT SoftGOT2000 | License required to use the GOT Mobile function with GT SoftGOT2000 (SGT2K-WEBSKEY-□) |
| GT Simulator3 | Screen simulator GT Simulator3 for GOT2000, GOT1000, and GOT900 series |
| GT SoftGOT2000 | GOT2000 compatible HMI software GT SoftGOT2000 |
| GT OPC UA Client | MELSOFT GT OPC UA Client (SW1DNN-GTOUC-MD) |
| GT Converter2 | Data conversion software GT Converter2 for GOT1000 and GOT900 series |
| GT Designer2 Classic | Screen design software GT Designer2 Classic for GOT900 series |
| GT Designer2 | Screen design software GT Designer2 for GOT1000 and GOT900 series |
| DU/WIN | Screen design software FX-PCS-DU/WIN for GOT-F900 series |

■Software related to iQ Works

| Abbreviations and generic terms | Description |
|---------------------------------|---|
| iQ Works | iQ Platform compatible engineering environment MELSOFT iQ Works |
| MELSOFT Navigator | Integrated development environment software included in SW□DND-IQWK (iQ Platform compatible engineering environment MELSOFT iQ Works) (□ represents a version.) |
| MELSOFT iQ AppPortal | SW□DND-IQAPL-M type integrated application management software (□ represents a version.) |

Other software

| Abbreviations and generic terms | | Description |
|---------------------------------------|---------------|--|
| GX Works3 | | SW□DND-GXW3-E (-EA, -EAZ) type programmable controller engineering software (□ represents a version.) |
| GX Works2 | | SW□DNC-GXW2-E (-EA, -EAZ) type programmable controller engineering software (□ represents a version.) |
| Controller simulator | GX Simulator3 | Simulation function of GX Works3 |
| | GX Simulator2 | Simulation function of GX Works2 |
| | GX Simulator | SW□D5C-LLT-E (-EV) type ladder logic test tool function software package (SW5D5C-LLT (-V) or later versions) (□ represents a version.) |
| GX Developer | | SW□D5C-GPPW-E (-EV)/SW□D5F-GPPW (-V) type software package (□ represents a version.) |
| GX LogViewer | | SW□DNN-VIEWER-E type software package (□ represents a version.) |
| MI Configurator | | Configuration and monitor tool for Mitsubishi Electric industrial computers (SW□DNNMICONF-M) (□ represents a version.) |
| PX Developer | | SW□D5C-FBDQ-E type FBD software package for process control (□ represents a version.) |
| MT Works2 | | Motion controller engineering environment MELSOFT MT Works2 (SW□DND-MTW2-E) (□ represents a version.) |
| MT Developer | | SW□RNC-GSV type integrated start-up support software for motion controller Q series (□ represents a version.) |
| CW Configurator | | Setting/monitoring tools for the C Controller module and MELSECWinCPU (SW□DND-RCCPU-E) (□ represents a version.) |
| MR Configurator2 | | SW□DNC-MRC2-E type servo configuration software (□ represents a version.) |
| MR Configurator | | MRZJW□-SETUP type servo configuration software (□ represents a version.) |
| FR Configurator2 | | Inverter setup software (SW□DND-FRC2-E) (□ represents a version.) |
| FR Configurator | | Inverter setup software (FR-SW□-SETUP-WE) (□ represents a version.) |
| NC Configurator2 | | CNC parameter setting support tool (FCSB1221) |
| NC Configurator | | CNC parameter setting support tool |
| FX Configurator-FP | | Parameter setting, monitoring, and testing software package for FX3U-20SSC-H (SW□D5CFXSSCE) (□ represents a version.) |
| FX Configurator-EN-L | | FX3U-ENET-L type Ethernet module setting software (SW1D5-FXENETL-E) |
| FX Configurator-EN | | FX3U-ENET type Ethernet module setting software (SW1D5C-FXENET-E) |
| RT ToolBox2 | | Robot program creation software (3D-11C-WINE) |
| RT ToolBox3 | | Robot program creation software (3F-14C-WINE) |
| MX Component | | MX Component Version□ (SW□D5C-ACT-E, SW□D5C-ACT-EA) (□ represents a version.) |
| MX Sheet | | MX Sheet Version□ (SW□D5C-SHEET-E, SW□D5C-SHEET-EA) (□ represents a version.) |
| CPU Module Logging Configuration Tool | | CPU module logging configuration tool (SW1DNN-LLUTL-E) |

License key (for GT SoftGOT2000)

| Abbreviations and generic terms | Description |
|---------------------------------|---------------|
| License key | GT27-SGTKEY-U |

Others

| Abbreviations and generic terms | Description |
|--|--|
| IAI | IAI Corporation |
| AZBIL | Azbil Corporation |
| OMRON | OMRON Corporation |
| KEYENCE | KEYENCE CORPORATION |
| JTEKT ELECTRONICS (formerly KOYO EI) | JTEKT ELECTRONICS CORPORATION (formerly KOYO ELECTRONICS INDUSTRIES CO., LTD.) |
| JTEKT | JTEKT CORPORATION |
| SHARP | Sharp Corporation |
| SHINKO | Shinko Technos Co., Ltd. |
| CHINO | CHINO CORPORATION |
| TOSHIBA | TOSHIBA CORPORATION |
| SHIBAURA MACHINE | SHIBAURA MACHINE CO., LTD. |
| PANASONIC | Panasonic Corporation |
| PANASONIC IDS | Panasonic Industrial Devices SUNX Co., Ltd. |
| HITACHI IES | Hitachi Industrial Equipment Systems Co., Ltd. |
| HITACHI | Hitachi, Ltd. |
| HIRATA | Hirata Corporation |
| FUJI | FUJI ELECTRIC CO., LTD. |
| MURATEC | Muratec products manufactured by Murata Machinery, Ltd. |
| YASKAWA | YASKAWA Electric Corporation |
| YOKOGAWA | Yokogawa Electric Corporation |
| RKC | RKC INSTRUMENT INC. |
| ALLEN-BRADLEY | Allen-Bradley products manufactured by Rockwell Automation, Inc. |
| CLPA | CC-Link Partner Association |
| GE | GE Intelligent Platforms, Inc. |
| HMS | HMS Industrial Networks |
| LS ELECTRIC (formerly LS IS) | LS ELECTRIC Co., Ltd (formerly LS Industrial Systems Co., Ltd.) |
| mitsubishi india | Mitsubishi Electric India Pvt. Ltd. |
| ODVA | Open DeviceNet Vendor Association, Inc. |
| SCHNEIDER | Schneider Electric SA |
| SICK | SICK AG |
| SIEMENS | Siemens AG |
| SCHNEIDER EJH | Schneider Electric Japan Holdings Ltd. |
| PLC | Programmable controller manufactured by its respective company |
| Control equipment | Control equipment manufactured by its respective company |
| Temperature controller | Temperature controller manufactured by its respective company |
| Indicating controller | Indicating controller manufactured by its respective company |
| Controller | Controller manufactured by its respective company |
| Industrial switch (for CC-Link IE TSN Class B) | CC-Link IE TSN Class B (Synchronized Realtime Communication) hub certified by CC-Link Partner Association |
| Industrial switch (for CC-Link IE TSN Class A) | CC-Link IE TSN Class A (Realtime Communication) hub certified by CC-Link Partner Association |
| CC-Link IE TSN-equipped module | Generic term for the following CC-Link IE TSN master/local modules and CC-Link IE TSN Plus master/local module <ul style="list-style-type: none"> • RJ71GN11-T2 • RJ71GN11-EIP • FX5-CCLGN-MS |

MEMO

PART 1

PREPARATORY PROCEDURES FOR MONITORING

1 PREPARATORY PROCEDURES FOR MONITORING

1 PREPARATORY PROCEDURES FOR MONITORING

- Page 33 Setting the Communication Interface
- Page 51 Writing the Project Data onto the GOT
- Page 53 Option Devices for the Respective Connection
- Page 58 Connection Cables for the Respective Connection
- Page 69 Verifying GOT Recognizes Connected Equipment
- Page 71 Checking for Normal Monitoring

The following shows the procedures to be taken before monitoring and corresponding reference sections.

1. Setting the communication interface

Determine the connection type and channel No. to be used, and perform the communication setting.

☞ Page 33 Setting the Communication Interface

☞ Each chapter GOT Side Settings

2. Writing the package data

Write the project data, system application onto the GOT.

☞ Page 51 Writing the project data and OS onto the GOT

3. Verifying the package data

Verify the project data, system application are properly written onto the GOT.

☞ Page 52 Checking the project data and OS writing on GOT

4. Attaching the communication unit and connecting the cable

Mount the optional equipment and prepare/connect the connection cable according to the connection type.

☞ Page 53 Option Devices for the Respective Connection

☞ Page 58 Connection Cables for the Respective Connection

☞ Each chapter System Configuration

☞ Each chapter Connection Diagram

5. Verifying GOT recognizes connected equipment

Verify the GOT recognizes controllers on [Communication Settings] of the Utility.

☞ Page 69 Verifying GOT Recognizes Connected Equipment

6. Verifying the GOT is monitoring normally

Verify the GOT is monitoring normally using Utility, Developer, etc.

☞ Page 71 Checking for Normal Monitoring

1.1 Setting the Communication Interface

Set the communication interface of GOT and the connected equipment.

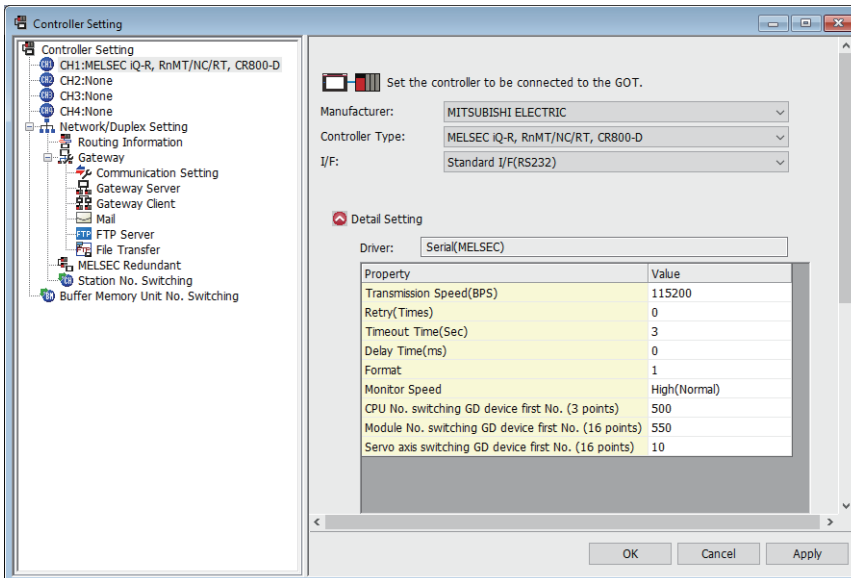
When using the GOT at the first time, make sure to set the channel of communication interface and the communication driver before writing to GOT.

Set the communication interface of the GOT at [Controller Setting] and [I/F Communication Setting] in GT Designer3.

Setting connected equipment (Channel setting)

Set the channel of the equipment connected to the GOT.

Setting



1. Select [Common] → [Controller Setting] from the menu.
2. The Controller Setting dialog box appears. Select the channel No. to be used from the list menu.
3. Refer to the following explanations for the setting.

Point

Channel No.2 to No.4

Use the channel No.2 to No.4 when using the Multi-channel function.

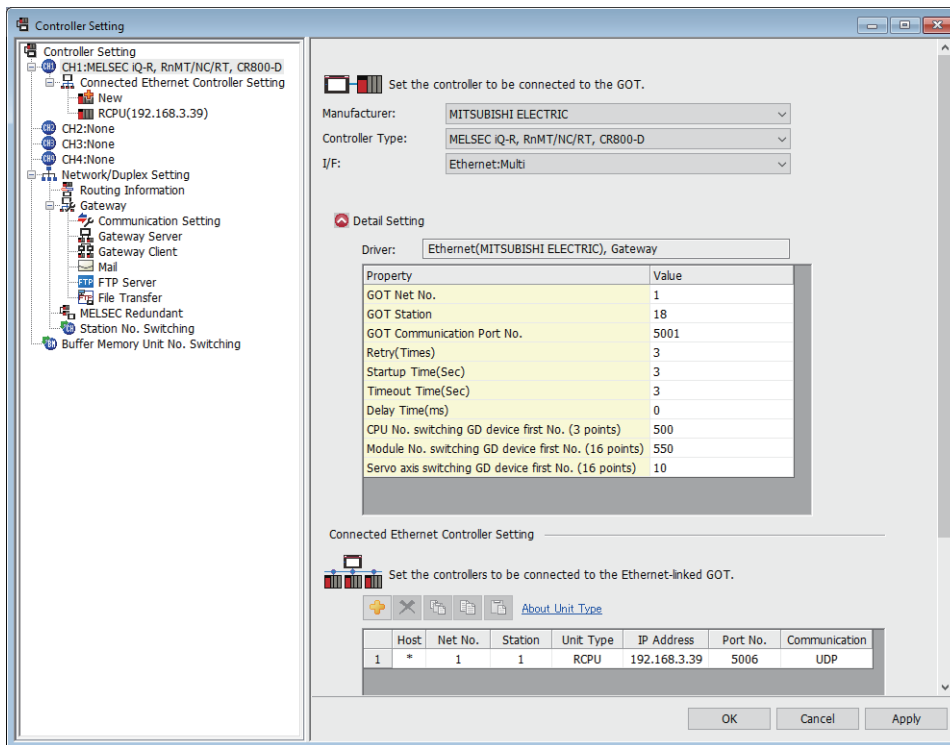
For details of the Multi-channel function, refer to the following.

📖 GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version1

Setting item

This section describes the setting items of the Manufacturer, Controller Type, Driver and I/F.

When using the channel No.2 to No.4, put a check mark at [Use CH*].



| Item | Description |
|----------------|---|
| Use CH* | Select this item when setting the channel No.2 to No.4. |
| Manufacturer | Select the manufacturer of the equipment to be connected to the GOT. |
| Type | Select the type of the equipment to be connected to the GOT. For the settings, refer to the following. ☞ Page 35 Setting [Controller Type] |
| I/F | Select the interface of the GOT to which the equipment is connected. For the settings, refer to the following. ☞ Page 43 Setting [I/F] |
| Driver | Select the communication driver to be written to the GOT. For the settings, refer to the following. ☞ Page 34 Setting [Driver] When multiple communication drivers can be selected, this item is displayed. When only one communication driver can be selected, the driver name is displayed under [Detail Setting]. |
| Detail Setting | Make settings for the transmission speed and data length of the communication driver. ☞ Refer to each chapter of the equipment to be connected to the GOT. |

■Setting [Driver]

The displayed items for a driver differ according to the settings [Manufacturer], [Controller Type] and [I/F].

When the driver to be set is not displayed, confirm if [Manufacturer], [Controller Type] and [I/F] are correct.

For the settings, refer to the following.

☞ [Setting the communication interface] section in each chapter

| Type | Model name |
|---------------------|------------|
| [IAI ROBO CYLINDER] | EC-S7 |
| | EC-S6□R |
| | EC-S7□R |
| | EC-S6□AH |
| | EC-S7□AH |
| | EC-S6□AHR |
| | EC-S7□AHR |
| | EC-R6 |
| | EC-R7 |
| | EC-RP4 |
| | EC-GS4 |
| | EC-GD4 |
| | EC-RR3 |
| | EC-RR4 |
| | EC-RR6 |
| | EC-RR7 |
| | EC-RR6□R |
| | EC-RR7□R |
| | EC-RR6□AH |
| | EC-RR7□AH |
| | EC-RR6□AHR |
| | EC-RR7□AHR |
| | EC-TC4 |
| | EC-TW4 |
| | EC-R6□W |
| | EC-R7□W |
| | EC-RR6□W |
| | EC-RR7□W |
| | EC-B6 |
| | EC-B7 |
| | EC-B6U |
| | EC-B7U |
| | EC-S3R |
| | EC-S4R |
| | EC-RR3R |
| | EC-RR4R |
| | EC-ST15 |
| | EC-RTC9 |
| | EC-RTC12 |
| | EC-S13 |
| | EC-S13X |
| | EC-S15 |
| | EC-S15X |
| | EC-RR6X□AH |
| | EC-RR7X□AH |

| Type | Model name | |
|---------------------|-----------------|---------|
| [IAI ROBO CYLINDER] | EC-WS10 | |
| | EC-WS12 | |
| | EC-GD5 | |
| | EC-RP5 | |
| | EC-TC5 | |
| | EC-TW5 | |
| | EC-S6□CR | |
| | EC-S7□CR | |
| | EC-S6AH□CR | |
| | EC-S7AH□CR | |
| | EC-S3□CR | |
| | EC-S4□CR | |
| | EC-GRB8M | |
| | EC-GRB10M | |
| | EC-GRB13M | |
| | EC-GRB13L | |
| | EC-S10 | |
| | EC-S10X | |
| | [Azbil SDC/DMC] | DMC10 |
| | | SDC15 |
| SDC25 | | |
| SDC26 | | |
| SDC35 | | |
| SDC36 | | |
| SDC20 | | |
| SDC21 | | |
| SDC30 | | |
| SDC31 | | |
| SDC40A | | |
| SDC40B | | |
| SDC40G | | |
| SDC45 | | |
| SDC46 | | |
| CMS | | |
| CMF015 | | |
| CMF050 | | |
| CML | | |
| MQV | | |
| MPC | | |
| MVF | | |
| PBC201-VN2 | | |
| AUR350C | | |
| AUR450C | | |
| RX | | |
| CMC10B | | |
| [Azbil DMC50] | | DMC50 |
| | | AHC2001 |

| Type | Model name |
|----------------|------------|
| [OMRON SYSMAC] | CPM1 |
| | CPM1A |
| | CPM2A |
| | CPM2C |
| | CQM1 |
| | CQM1H |
| | CJ1H |
| | CJ1G |
| | CJ1M |
| | CJ2H |
| | CJ2M |
| | CP1H |
| | CP1L |
| | CP1E |
| | C200HS |
| | C200H |
| | C200HX |
| | C200HG |
| | C200HE |
| | CS1H |
| | CS1G |
| | CS1D |
| | CP2E-E |
| | CP2E-S |
| | CP2E-N |
| | C1000H |
| | C2000H |
| | CV500 |
| | CV1000 |
| | CV2000 |
| | CVM1 |

| Type | Model name | |
|--|-----------------------------|------|
| [OMRON NJ/NX] | NJ501-1500 | |
| | NJ501-1400 | |
| | NJ501-1300 | |
| | NJ501-1520 | |
| | NJ501-1420 | |
| | NJ501-1320 | |
| | NJ501-1340 | |
| | NJ301-1200 | |
| | NJ301-1100 | |
| | NJ101-1000 | |
| | NJ101-9000 | |
| | NJ101-1020 | |
| | NJ101-9020 | |
| | NX1P2-1140DT | |
| | NX1P2-1140DT1 | |
| | NX1P2-1040DT | |
| | NX1P2-1040DT1 | |
| | NX1P2-9024DT | |
| | NX1P2-9024DT1 | |
| | NX701-1700 | |
| | NX701-1600 | |
| | NX102-1200 | |
| | NX102-1100 | |
| | NX102-1000 | |
| | NX102-9000 | |
| | [OMRON THERMAC/INPANEL NEO] | E5AN |
| | | E5EN |
| | | E5CN |
| E5GN | | |
| E5ZN | | |
| [OMRON Digital Temperature Controller] | E5AN | |
| | E5EN | |
| | E5CN | |
| | E5GN | |
| | E5AN-H | |
| | E5CN-H | |
| | E5EN-H | |
| | E5AN-HT | |
| | E5CN-HT | |
| | E5EN-HT | |
| | E5ZN | |
| | E5CC(-T,-B) | |
| | E5DC | |
| | E5GC | |
| | E5EC(-T,-B) | |
| | E5AC(-T) | |
| | E5CD(-B) | |
| | E5ED(-B) | |
| | E5AR(-T) | |
| | E5ER(-T) | |

| Type | Model name | |
|---|------------------|-------------|
| [KEYENCE KV-700/1000/3000/5000/7000/8000] | KV-700 | |
| | KV-1000 | |
| | KV-3000 | |
| | KV-5000 | |
| | KV-5500 | |
| | KV-7300 | |
| | KV-7500 | |
| | KV-8000 | |
| | KV-N14□□ | |
| | KV-N24□□ | |
| | KV-N40□□ | |
| | KV-N60□□ | |
| | KV-NC32T | |
| | [KOYO KOSTAC/DL] | SU-5E |
| SU-6B | | |
| SU-5M | | |
| SU-6M | | |
| PZ3 | | |
| D2-240 | | |
| D2-250-1 | | |
| D2-260 | | |
| D0-05AA | | |
| D0-05AD | | |
| D0-05AR | | |
| D0-05DA | | |
| D0-05DD | | |
| D0-05DD-D | | |
| D0-05DR | | |
| D0-05DR-D | | |
| D0-06DD1 | | |
| D0-06DD2 | | |
| D0-06DR | | |
| D0-06DA | | |
| D0-06AR | | |
| D0-06AA | | |
| D0-06DD1-D | | |
| D0-06DD2-D | | |
| D0-06DR-D | | |
| [JTEKT TOYOPUC-PC] | | PC3JG-P-CPU |
| | | PC3JG-CPU |
| | | PC3JD-CPU |
| | PC3JD-C-CPU | |
| | PC3J-CPU | |
| | PC3JL-CPU | |
| | PC2JC-CPU | |
| | PC2J16P-CPU | |
| | PC2J16PR-CPU | |
| | PC2J-CPU | |
| | PC2JS-CPU | |
| | PC2JR-CPU | |
| | PC10G-CPU | |

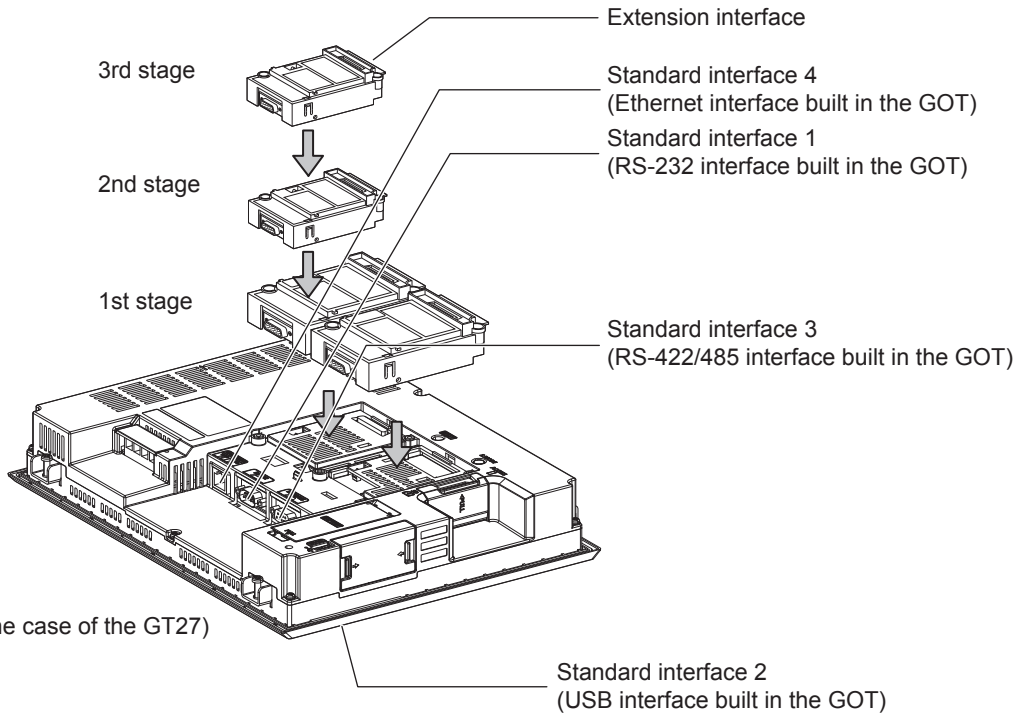
| Type | Model name | |
|-----------------------------|-----------------------|--------|
| [SHARP JW] | JW-21CU | |
| | JW-31CUH | |
| | JW-50CUH | |
| | JW-22CU | |
| | JW-32CUH | |
| | JW-33CUH | |
| | JW-70CUH | |
| | JW-100CUH | |
| | JW-100CU | |
| | Z-512J | |
| [Shinko Technos Controller] | ACS-13A-□/□□, C5 | |
| | JCS-33A-□/□□, C5 | |
| | JCR-33A-□/□□, C5 | |
| | JCD-33A-□/□□, C5 | |
| | JCM-33A-□/□□, C5 | |
| | JIR-301-M□, C5 | |
| | PCD-33A-□/□, C5 | |
| | PC935-□/□, C5 | |
| | PC955-□/□, C5 | |
| | PC935-□/□, C | |
| | PC955-□/□, C | |
| | FCD-13A-□/□, C | |
| | FCD-15A-□/□, C | |
| | FCR-13A-□/□, C | |
| | FCR-15A-□/□, C | |
| | FCR-23A-□/□, C | |
| | FIR-201-M, C | |
| | DCL-33A-□/□, □, C5 | |
| | ACD-13A-□/□, □, C | |
| | ACD-13A-□/□, □, C5 | |
| | ACR-13A-□/□, □, C | |
| | ACR-13A-□/□, □, C5 | |
| | BCD2□□□-□□ | |
| | BCR2□□□-□□ | |
| | BCS2□□□-□□ | |
| | [CHINO MODBUS device] | LT350 |
| | | LT370 |
| | | LT450 |
| | | LT470 |
| | | DZ1000 |
| DZ2000 | | |
| LT230 | | |
| LT830 | | |
| DB1000 | | |
| DB2000 | | |
| GT120 | | |

| Type | Model name |
|---------------------------------|----------------------|
| [TOSHIBA PROSEC TV] | T2 (PU224) |
| | T3 |
| | T3H |
| | T2E |
| | T2N |
| | model 2000(S2) |
| | model 2000(S2T) |
| | model 2000(S2E) |
| | model 3000 (S3) |
| [TOSHIBA Unified Controller nv] | PU811 |
| | PUM11 |
| | PUM12 |
| | PUM14 |
| [SHIBAURA MACHINE TCmini] | TC3-01 |
| | TC3-02 |
| | TC5-02 |
| | TC5-03 |
| | TC6-00 |
| | TC8-00 |
| | TS2000 |
| | TS2100 |
| | [Panasonic MINAS A4] |
| MINAS A4F | |
| MINAS A4L | |
| [Panasonic MINAS A5] | MINAS A5 |
| [Panasonic MEWNET-FP] | FP0-C16CT |
| | FP0-C32CT |
| | FP0R |
| | FP0H |
| | FP1-C24C |
| | FP1-C40C |
| | FP2 |
| | FP2SH |
| | FP3 |
| | FP5 |
| | FP10(S) |
| | FP10SH |
| | FP-M(C20TC) |
| | FP-M(C32TC) |
| | FPΣ |
| | FP-X |
| [Panasonic FP7] | FP7 |

■Setting [I/F]

The interface differs depending on the GOT to be used.

Set the I/F according to the connection and the position of communication unit to be mounted onto the GOT.



GOT Ethernet Setting

The GOT can be connected to a different network by using the following network.

1) GOT IP Address Setting

Set the following communication port setting.

Standard port (When using GT25-W or GS25: Port 1)

Set [GOT IP Address] and [Subnet Mask] in the standard port with a built-in GOT, or port 1.

Extended port (When using GT25-W or GS25: Port 2)

Set [GOT IP Address] and [Subnet Mask] in the extension port (the Ethernet interface for the Ethernet communication module), or port 2 with a built-in GOT.

When using any GOTs other than GT25-W and GS25, install BootOS version Z or later to use the extended port.

For details on writing the BootOS, refer to the following manual.

 GT Designer3 (GOT2000) Screen Design Manual

Wireless LAN

Set [GOT IP Address], [Subnet Mask], [Peripheral S/W Communication Port No.], and [Transparent Port No.] for the wireless LAN interface.

2) GOT Ethernet Common Setting

Set the following setting which is common to the standard port and the extension port, or port 1 and port 2.

- [Default Gateway]
- [Peripheral S/W Communication Port No.]
- [Transparent Port No.]

3) IP Filter Setting

By configuring the IP filter setting, the access from the specific IP address can be permitted or shut off.

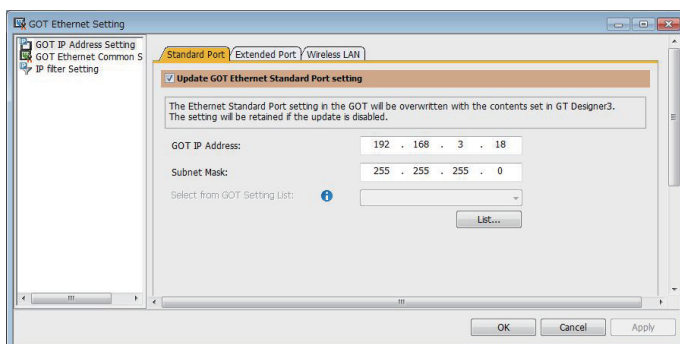
GOT IP Address Setting

Set the GOT IP address.


■[Standard Port] or [Port 1]

The following shows an example for [Standard Port].

1. Select [Common] → [GOT Ethernet Setting] → [GOT IP Address Setting] from the menu to display the [GOT Ethernet Setting] window.



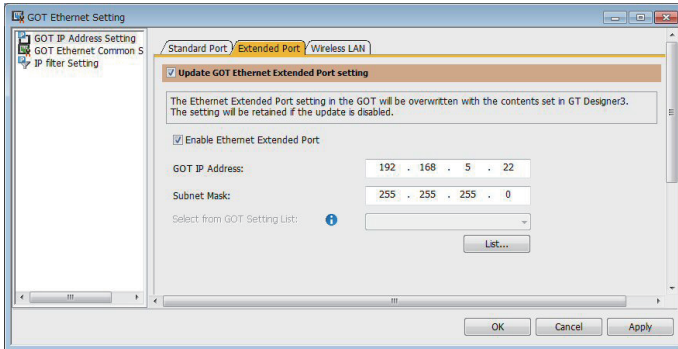
2. On the [Standard Port] tab, configure the following settings.

| Item | Description | Range |
|---|---|----------------------------|
| Update GOT Ethernet standard port setting | The GOT Ethernet standard port settings are applied on GOT. | - |
| GOT IP Address | Set the IP address of the GOT IP Address. (Default:192.168.3.18) | 0.0.0.0 to 255.255.255.255 |
| Subnet Mask | Set the subnet mask for the sub network. (Only for connection via router) If the sub network is not used, the default value is set. (Default: 255.255.255.0) | 0.0.0.0 to 255.255.255.255 |
| Select from GOT Setting List | Select the GOT set in [GOT Setting List] dialog.  GT Designer3 (GOT2000) Screen Design Manual | - |

■[Extended Port], or [Port 2]

The following shows an example for [Extended Port].

1. Select [Common] → [GOT Ethernet Setting] → [GOT IP Address Setting] from the menu to display the [GOT Ethernet Setting] window.

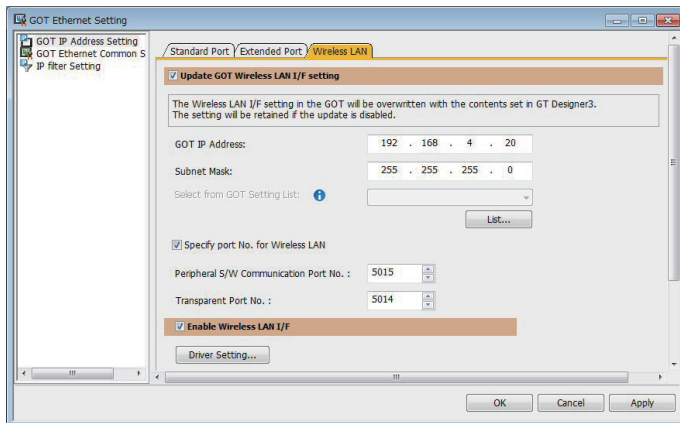


2. On the [Extended Port] tab, configure the following settings.

| Item | Description | Range |
|---|--|----------------------------|
| Update GOT Ethernet extended port setting | The GOT Ethernet extended port settings are applied on GOT. | - |
| Enable Ethernet extended port | Enable the ethernet extended port. | - |
| GOT IP Address | Set the IP address of the GOT IP Address. (Default:192.168.5.22) | 0.0.0.0 to 255.255.255.255 |
| Subnet Mask | Set the subnet mask for the sub network. (Only for connection via router) If the sub network is not used, the default value is set. (Default: 255.255.255.0) | 0.0.0.0 to 255.255.255.255 |
| Select from GOT Setting List | Select the GOT set in [GOT Setting List] dialog. 📖GT Designer3 (GOT2000) Screen Design Manual | - |

■[Wireless LAN]

1. Select [Common] → [GOT Ethernet Setting] → [GOT IP Address Setting] from the menu to display the [GOT Ethernet Setting] window.



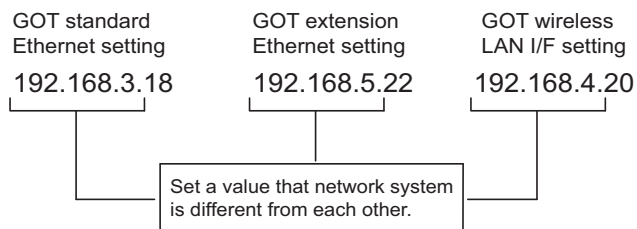
2. On the [Wireless LAN] tab, configure the following settings.

| Item | Description | Range |
|---------------------------------------|--|---|
| Update GOT Wireless LAN I/F setting | The wireless LAN interface settings are applied on GOT. | - |
| Enable Wireless LAN I/F | Enable the wireless LAN. | - |
| GOT IP Address | Set the IP address of the wireless LAN I/F. (Default:192.168.4.20) | 0.0.0.0 to 255.255.255.255 |
| Subnet Mask | Set the subnet mask for the sub network. (Only for connection via router) If the sub network is not used, the default value is set. (Default: 255.255.255.0) | 0.0.0.0 to 255.255.255.255 |
| Select from GOT Setting List | Select the GOT set in [GOT Setting List] dialog. 📖GT Designer3 (GOT2000) Screen Design Manual | - |
| Specify port No. for Wireless LAN | Enable the port number setting for the wireless LAN separately from GOT Ethernet common setting. | - |
| Peripheral S/W Communication Port No. | Set the GOT port No. for the communication with the peripheral S/W. (Default: 5015) | 1024 to 65534 (Except for 5011 to 5013, 49153 to 49170) |
| Transparent Port No. | Set the GOT port No. for the transparent function. (Default: 5014) | 1024 to 65534 (Except for 5011 to 5013, 49153 to 49170) |
| Driver setting | Display [Detail Settings] dialog, 📖GT Designer3 (GOT2000) Screen Design Manual | - |

Point

GOT IP address

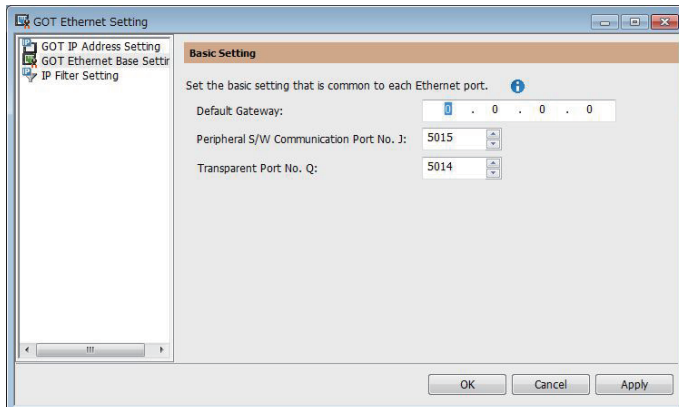
For GOT IP address of each Ethernet setting, set a value that network system is different from each other.
(When the subnet mask is [255.255.255.0])



GOT Ethernet Common Setting

Set the following setting which is common to the standard port and the extension port, or port 1 and port 2.

1. Select [Common] → [GOT Ethernet Setting] → [GOT Ethernet Common Setting] from the menu to display the [GOT Ethernet Setting] window.

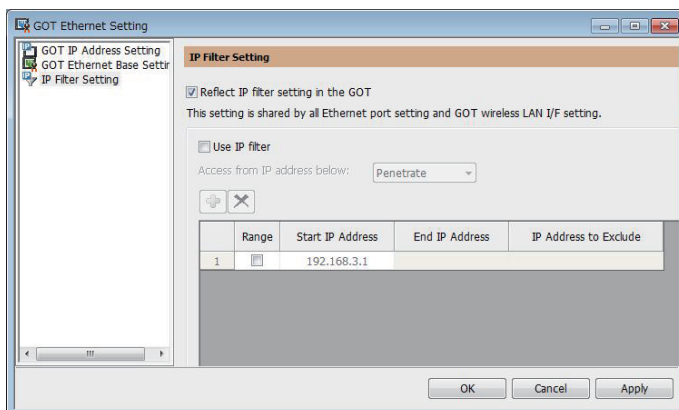


2. Configure the following settings.

| Item | Description | Range |
|---------------------------------------|---|---|
| Default Gateway | Set the router address of the default gateway where the GOT is connected. (Only for connection via router) (Default: 0.0.0.0) | 0.0.0.0 to 255.255.255.255 |
| Peripheral S/W Communication Port No. | Set the GOT port No. for the communication with the peripheral S/W. (Default: 5015) | 1024 to 65534 (Except for 5011 to 5013, 49153 to 49170) |
| Transparent Port No. | Set the GOT port No. for the transparent function. (Default: 5014) | 1024 to 65534 (Except for 5011 to 5013, 49153 to 49170) |

IP Filter Setting

1. Select [Common] → [GOT Ethernet Setting] → [IP Filter Setting] from the menu to display the [GOT Ethernet Setting] window.



2. For the detailed settings, refer to the following manual.

GT Designer3 (GOT2000) Screen Design Manual

I/F communication setting

This function displays the list of the GOT communication interfaces.
Set the channel and the communication driver to the interface to be used.

Setting

| Standard I/F Setting | | |
|----------------------|--------|----------------|
| | CH No. | Driver |
| I/F-1: RS422/485 | 1 | Serial(MELSEC) |
| I/F-2: RS232 | 0 | None |
| I/F-3: USB | 9 | Host (PC) |

RS232 Setting

Enable the 5V power supply

| Ethernet Connection Setting | | |
|-----------------------------|--------|--------|
| | CH No. | Driver |
| Ethernet | 0 | None |

| Extend I/F Setting | | |
|--------------------|--------|--------|
| | CH No. | Driver |
| 1st | 0 | None |
| 2nd | 0 | None |
| 3rd | 0 | None |

1. Select [Common] → [I/F Communication Setting] from the menu.
2. The I/F Communication Setting dialog box appears. Make the settings with reference to the following explanation.

Setting item

The following describes the setting items for the standard I/F setting and extension I/F setting.




For the detailed explanations, refer to the following manual.

GT Designer3 (GOT2000) Screen Design Manual

When GT2104-P or GT2103-P is selected in the GOT type setting

I/F-1: RS422/485/232(Side)
I/F-2: RS232(Back)

| Item | Description |
|-----------------------------|---|
| Standard I/F Setting | Set channel No. and drivers to the GOT standard interfaces. |
| CH No. | Set the CH No. according to the intended purpose. 0: Not used 1 to 4: Used for connecting a controller of channel No. 1 to 4 set in Setting connected equipment (Channel setting) 5 to 8: Used for barcode function, RFID function, remote personal computer operation function (serial) A: Used for the report function (with a serial printer), hard copy function (with a serial printer). |
| Driver | Set the driver for the device to be connected. • Each communication driver suitable to the channel numbers • Each communication driver for connected devices |
| Detail Setting | Set the detailed settings for the communication driver. Refer to each chapter of the equipment to be connected to the GOT. |
| I/F-1,I/F-2,I/F-3 | The communication type of the GOT standard interface is displayed. |
| RS232 Setting | To validate the 5V power supply function in RS232, mark the [Enable the 5V power supply] checkbox. The RS232 setting is invalid when the CH No. of [I/F-1: RS232] is [9]. Not applicable to GT21 and GS21. |
| Ethernet Connection Setting | Set the channel number and the communication driver to the Ethernet interface with a built-in GOT. |
| CH No. | Set the CH No. according to the intended purpose. 0: Not used 1 to 4: Used for connecting a controller of channel No. 1 to 4 set in Setting connected equipment (Channel setting) 9: Used for connecting Host (PC) or Ethernet download A: Used for the remote personal computer operation function (Ethernet), VNC server function, gateway function, and MES interface function. Multi: Used for multi-channel Ethernet connection |
| Driver | Set the driver for the device to be connected. • Each communication driver suitable to the channel numbers • Each communication driver for connected devices |
| Detail Setting | Set the detailed settings for the communication driver. Refer to each chapter of the equipment to be connected to the GOT. |

| Item | Description | | |
|---|---|--|--|
| Extend I/F Setting | Set the communication unit attached to the extension interface of the GOT. Not applicable to GT21 and GS21. | | |
| | <table border="1"> <tr> <td>CH No.</td> <td>Set the CH No. according to the intended purpose. The number of channels differs depending on the GOT to be used. 0: Not used 1 to 4: Used for the controllers of channel numbers 1 to 4 set in controller setting (channel setting). 5 to 8: Used for the barcode function, the RFID function, and the remote personal computer operation function (Serial). A: Used for the video/RGB display function, multimedia function, external I/O function, operation panel function, video output function, report function, hard copy function (with a printer), and sound output function.</td> </tr> </table> | CH No. | Set the CH No. according to the intended purpose. The number of channels differs depending on the GOT to be used. 0: Not used 1 to 4: Used for the controllers of channel numbers 1 to 4 set in controller setting (channel setting). 5 to 8: Used for the barcode function, the RFID function, and the remote personal computer operation function (Serial). A: Used for the video/RGB display function, multimedia function, external I/O function, operation panel function, video output function, report function, hard copy function (with a printer), and sound output function. |
| | CH No. | Set the CH No. according to the intended purpose. The number of channels differs depending on the GOT to be used. 0: Not used 1 to 4: Used for the controllers of channel numbers 1 to 4 set in controller setting (channel setting). 5 to 8: Used for the barcode function, the RFID function, and the remote personal computer operation function (Serial). A: Used for the video/RGB display function, multimedia function, external I/O function, operation panel function, video output function, report function, hard copy function (with a printer), and sound output function. | |
| | <table border="1"> <tr> <td>Driver</td> <td>Set the driver for the device to be connected. <ul style="list-style-type: none"> • Each communication driver suitable to the channel numbers • Each communication driver for connected devices </td> </tr> </table> | Driver | Set the driver for the device to be connected. <ul style="list-style-type: none"> • Each communication driver suitable to the channel numbers • Each communication driver for connected devices |
| Driver | Set the driver for the device to be connected. <ul style="list-style-type: none"> • Each communication driver suitable to the channel numbers • Each communication driver for connected devices | | |
| <table border="1"> <tr> <td>Detail Setting</td> <td>Set the detailed settings for the communication driver.  Refer to each chapter of the equipment to be connected to the GOT.</td> </tr> </table> | Detail Setting | Set the detailed settings for the communication driver.  Refer to each chapter of the equipment to be connected to the GOT. | |
| Detail Setting | Set the detailed settings for the communication driver.  Refer to each chapter of the equipment to be connected to the GOT. | | |


Point

Channel No., drivers, [RS232 Setting]

- Channel No.2 to No.4

Use the channel No.2 to No.4 when using the Multi-channel function.


For details of the Multi-channel function, refer to the following.

 GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version1

- Drivers

The displayed items for a driver differ according to the settings [Manufacturer], [Controller Type] and [I/F].

When the driver to be set is not displayed, confirm if [Manufacturer], [Controller Type] and [I/F] are correct.

 [Setting the communication interface] section in each chapter

Precautions

Precautions for changing model

■When devices that cannot be converted are included.

When setting of [Manufacturer] or [Controller Type] is changed, GT Designer3 displays the device that cannot be converted (no corresponding device type, or excessive setting ranges) as [??]. In this case, set the device again.

■When the changed Manufacturer or Controller Type does not correspond to the network.

The network will be set to the host station.

■When the Manufacturer or Controller Type is changed to [None]

The GT Designer3 displays the device of the changed channel No. as [??]. In this case, set the device again.

Since the channel No. is retained, the objects can be reused in other channel No. in a batch by using the [Device Batch Edit], [CH No. Batch Edit] or [Device List].

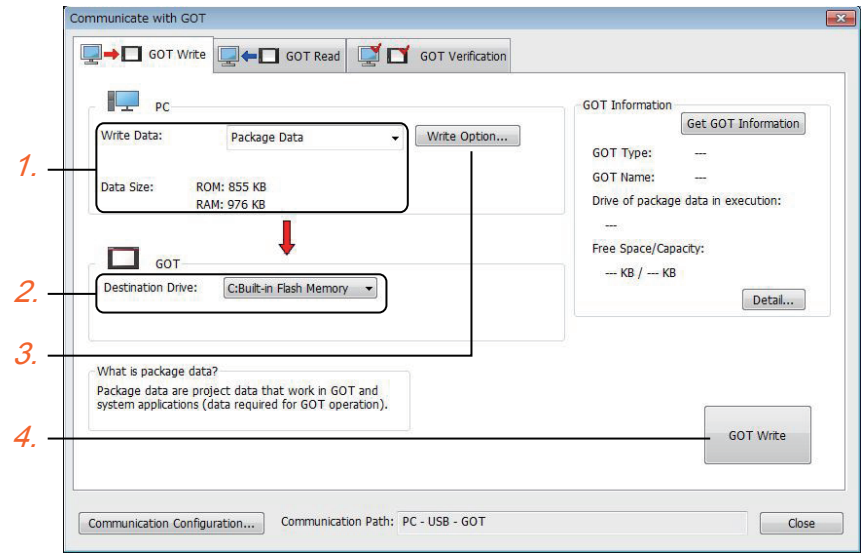
1.2 Writing the Project Data onto the GOT

Write the package data onto the GOT.

For details on writing to GOT, refer to the following manual.

📖GT Designer3 (GOT2000) Screen Design Manual

Writing the project data and OS onto the GOT



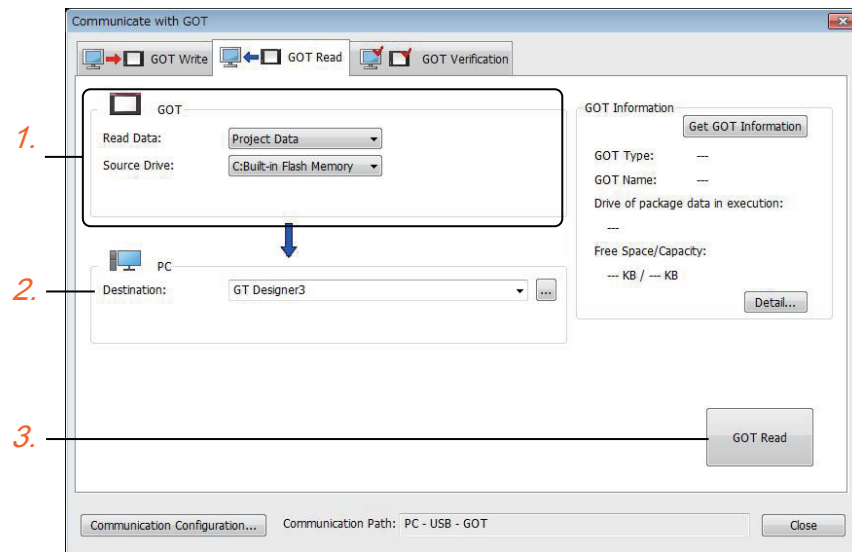
1. Select [Package Data] for [Write Data].
The capacity of the transfer data is displayed in [Data Size]. Check that the destination drive has the sufficient available space.
2. Select [Destination Drive].
3. When the system application or the special data is required to be added to the package data or deleted, click the [Write Option] button and configure the setting in the [Write Option] dialog.
4. Click the [GOT Write] button.
5. The package data is written to the GOT.

Checking the project data and OS writing on GOT

Confirm if the package data is properly written onto the GOT by reading from GOT using GT Designer3.

For reading from the GOT, refer to the following manual.

📖 GT Designer3 (GOT2000) Screen Design Manual



1. Set [GOT Side] as follows.

- Select [Project Data] or [Package Data] for [Read Data].
- Select the drive where the project data or the package data is stored for [Source Drive].

2. Set [PC Side].

Set the reading destination of the project for [Destination].

To read the project data to GT Designer3, select [GT Designer3].

(When [Read Data] is [Package Data], the project data cannot be read to GT Designer3.)

To read the project data as a file, click the [...] button to set the saving format and the saving destination of the file.

3. Click the [GOT Read] button.

4. The project is read.


5. Confirm that the project data is written correctly onto the GOT.

1.3 Option Devices for the Respective Connection

The following shows the option devices to connect in the respective connection type.

For the specifications, usage and connecting procedure on option devices, refer to the respective device manual.

Communication module

| Product name | Model | Specifications |
|--|-----------------|---|
| Bus connection unit | GT15-QBUS | For QCPU (Q mode), Motion CPU (Q series) Bus connection (1ch) unit standard model |
| | GT15-QBUS2 | For QCPU (Q mode), Motion CPU (Q series) Bus connection (2ch) unit standard model |
| | GT15-ABUS | For A/QnACPU, Motion CPU (A series) Bus connection (1ch) unit standard model |
| | GT15-ABUS2 | For A/QnACPU, Motion CPU (A series) Bus connection (2ch) unit standard model |
| | GT15-75QBUSL | For QCPU (Q mode), Motion CPU (Q series) Bus connection (1ch) unit slim model |
| | GT15-75QBUS2L | For QCPU (Q mode), Motion CPU (Q series) Bus connection (2ch) unit slim model |
| | GT15-75ABUSL | For A/QnACPU, Motion CPU (A series) Bus connection (1ch) unit slim model |
| | GT15-75ABUS2L | For A/QnACPU, Motion CPU (A series) Bus connection (1ch) unit slim model |
| Serial communication unit | GT15-RS2-9P | RS-232 serial communication unit (D-sub 9-pin (male)) |
| | GT15-RS4-9S | RS-422/485 serial communication unit (D-sub 9-pin (female)) |
| | GT15-RS4-TE | RS-422/485 serial communication unit (terminal block) |
| MELSECNET/H communication unit | GT15-J71LP23-25 | Optical loop unit |
| | GT15-J71BR13 | Coaxial bus unit |
| MELSECNET/10 communication unit | GT15-J71LP23-25 | Optical loop unit (MELSECNET/H communication unit used in the MNET/10 mode) |
| | GT15-J71BR13 | Coaxial bus unit (MELSECNET/H communication unit used in the MNET/10 mode) |
| CC-Link IE TSN communication unit | GT25-J71GN13-T2 | Local station (device station) |
| CC-Link IE Controller Network communication unit | GT15-J71GP23-SX | Optical loop unit |
| CC-Link IE Field Network communication unit | GT15-J71GF13-T2 | CC-Link IE Field Network (1000BASE-T) unit |
| CC-Link communication unit | GT15-J61BT13 | Intelligent device station unit CC-LINK Ver. 2 compatible |
| Ethernet communication unit | GT25-J71E71-100 | Ethernet (100Base-TX) unit |
| Wireless LAN communication unit ^{*1*2} | GT25-WLAN | Used for the connection to the IEEE802.11b/g/n compliant, built-in antenna, access point (master unit), station (slave unit), personal computers, tablets, and smartphones. For the hardware version and applicable wireless standards of the wireless LAN communication unit, refer to the following.  Page 54 Hardware version and applicable wireless standards of the wireless LAN unit |

*1 Data transfer in wireless LAN communication may not be as stable as that in cable communication. A packet loss may occur depending on the surrounding environment and the installation location. Be sure to perform a confirmation of operation before using this product.

*2 When [Operation Mode] is set to [Access Point] in [Wireless LAN Setting] of GT Designer3, up to five stations are connectable to the wireless LAN access point (base station).

Hardware version and applicable wireless standards of the wireless LAN unit

○: Compliant —: Not compliant

| Hardware version | Compliance status | | | | | | Country where the unit can be used |
|---|--------------------|---------------|--|------|----|------------------------------------|--|
| | Japanese Radio Act | FCC standards | RE Directive (R&TTE Directive) ^{*1} | SRRC | KC | Radio Equipment Regulations (UKCA) | |
| A Manufactured from Dec. 2013 | ○ | — | — | — | — | — | Japan only |
| B Manufactured from Oct. 2014 | ○ | ○ | ○ | — | — | — | Japan, the United States, the EU member states, Switzerland, Norway, Iceland, and Liechtenstein |
| C Manufactured from Feb. 2016 | ○ | ○ | ○ | — | — | — | |
| D Manufactured from May 2016 | ○ | ○ | ○ | ○ | ○ | — | Japan, the United States, the EU member states, Switzerland, Norway, Iceland, Liechtenstein, China (excluding Hong Kong, Macao, and Taiwan), and South Korea |
| E Manufactured from Oct. 2017 | ○ | ○ | ○ | ○ | ○ | — | |
| F Manufactured from Jul. 2019 | ○ | ○ | ○ | ○ | ○ | — | |
| G Manufactured from Oct. 2021 | ○ | ○ | ○ | ○ | ○ | ○ | Japan, the United States, the EU member states, the UK, Switzerland, Norway, Iceland, Liechtenstein, China (excluding Hong Kong, Macao, and Taiwan), and South Korea |
| H Manufactured from Jan. 2023 | ○ | ○ | ○ | ○ | ○ | ○ | |
| J Manufactured from Mar. 2023 | ○ | ○ | ○ | ○ | ○ | ○ | |
| K or later Manufactured from Feb. 2024 | ○ | ○ | ○ | — | ○ | ○ | Japan, the United States, the EU member states, the UK, Switzerland, Norway, Iceland, Liechtenstein, and South Korea |

*1 The wireless LAN unit complies with the RE Directive from March 31, 2017.


Option unit

| Product name | Model | Specifications |
|---------------------------|--------------------------|---|
| Multimedia unit | GT27-MMR-Z | For video input signal (NTSC/PAL) 1 ch, playing movie |
| Video input unit | GT27-V4-Z | For video input signal (NTSC/PAL) 4 ch |
| RGB input unit | GT27-R2 GT27-R2-Z | For analog RGB input signal 2 ch |
| Video/RGB input unit | GT27-V4R1-Z | For video input signal (NTSC/PAL) 4 ch, for analog RGB mixed input signal 1 ch |
| RGB output unit | GT27-ROUT GT27-ROUT-Z | For analog RGB output signal 1 ch |
| Digital video output unit | GT27-VHOUT | For digital video output, 1 channel |
| Sound output unit | GT15-SOUT | For sound output |
| External I/O unit | GT15-DIOR | For the connection to external I/O device or operation panel (Negative Common Input/Source Type Output) |
| | GT15-DIO | For the connection to external I/O device or operation panel (Positive Common Input/Sink Type Output) |


Conversion cables

| Product name | Model | Specifications |
|--|------------------|---|
| RS-485 terminal block conversion modules | FA-LTBGT2R4CBL05 | RS-422/485 (Connector) ↔ RS-485 (Terminal block) Supplied connection cable dedicated for the conversion unit |
| | FA-LTBGT2R4CBL10 | |
| | FA-LTBGT2R4CBL20 | |

Serial Multi-Drop Connection Unit

| Product name | Model | Specifications |
|-----------------------------------|------------|--|
| Serial multi-drop connection unit | GT01-RS4-M | GOT multi-drop connection module  GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version1 |

Field Network Adapter Unit

| Product name | Model | Specifications |
|----------------------------|------------|--|
| Field network adapter unit | GT25-FNADP | The field network adapter unit can be used with the following field networks by using the Anybus CompactCom M40 network communication module manufactured by HMS (hereinafter referred to as the communication module). Field networks: PROFIBUS DP-V1 DeviceNet How to incorporate the communication module to the field network adapter unit, and the details of the product name of the communication module, refer to the following manual.  GOT2000 Series Field Network Adapter Unit User's Manual |

RS-232/485 signal conversion adapter

| Product name | Model | Specifications |
|--------------------------------------|---------------|--|
| RS-232/485 signal conversion adapter | GT14-RS2T4-9P | RS-232 signal (D-Sub 9-pin connector) → RS-485 signal (Terminal block) |

Precautions when installing units on top of one another

When units are mounted on another unit, the mounting position is restricted depending on the combination of the units.

Point

- Mounting method of a communication unit and option unit


For the mounting method of a communication unit and option unit, refer to the following.

 GOT2000 Series User's Manual (Hardware)

- When the multi-channel function is used

When the multi-channel function is used, the combination of connection types is restricted.

For the combination of connection types, refer to the following.

 GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version1

| Product name | | Model | Number of occupied slots | Mounting position |
|---|--|-----------------|--------------------------|--|
| Group A *1 | Video input unit | GT27-V4-Z *2 | 2 | 1st stage |
| | RGB input unit | GT27-R2 | | |
| | | GT27-R2-Z *2 | | |
| | Video/RGB input unit | GT27-V4R1-Z *2 | | |
| | RGB output unit | GT27-ROUT | | |
| | | GT27-ROUT-Z *2 | | |
| Multimedia unit | GT27-MMR-Z *2 | | | |
| Digital video output unit | GT27-VHOUT | | | |
| Group B *1 | Bus connection unit (2 channels) *3 | GT15-QBUS2 | 2 | <ul style="list-style-type: none"> • When a unit in group A is mounted: Upper stage of the group A unit • When no unit in group A is mounted: 1st stage • When any units in group C are mounted: Lower stage of the group C units |
| | | GT15-ABUS2 | | |
| | MELSECNET/H communication unit | GT15-J71LP23-25 | | |
| | | GT15-J71BR13 | | |
| | CC-Link IE TSN communication unit | GT25-J71GN13-T2 | | |
| | CC-Link IE Controller Network communication unit | GT15-J71GP23-SX | | |
| CC-Link IE Field Network communication unit | GT15-J71GF13-T2 | | | |
| CC-Link communication unit | GT15-J61BT13 | | | |
| Group C | Bus connection unit (1 channel) *3*4 | GT15-QBUS | 1 | <ul style="list-style-type: none"> • When a unit in group A is mounted: Upper stage of the group A unit • When a unit in group B is mounted: Upper stage of the group B unit |
| | | GT15-ABUS | | |
| | Ethernet communication unit | GT25-J71E71-100 | | |
| | Serial communication unit | GT15-RS2-9P | | |
| | | GT15-RS4-9S | | |
| | | GT15-RS4-TE | | |
| | Sound output unit | GT15-SOUT | | |
| External I/O unit | GT15-DIOR | | | |
| | GT15-DIO | | | |
| Printer unit | GT15-PRN | | | |
| Field network adapter unit | GT25-FNADP | 1 | Uppermost stage | |

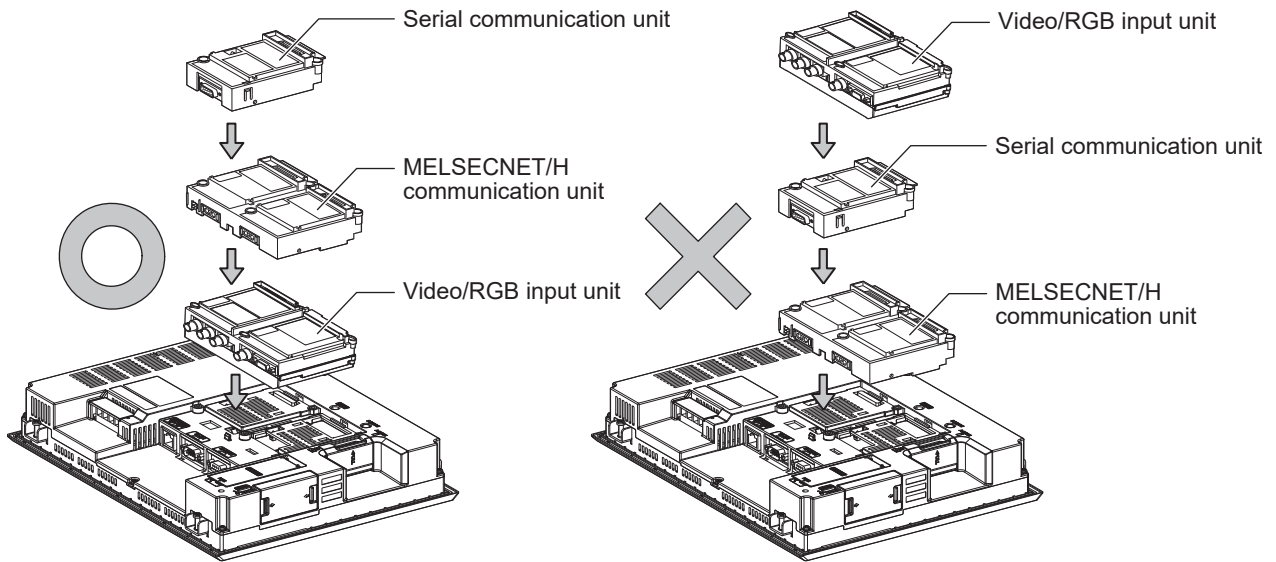
*1 Only one of the units can be mounted on the GOT.

*2 Mounting the unit requires two stages.

*3 A slim model bus connection unit (GT15-75QBUSL, GT15-75QBUS2L, GT15-75ABUSL, or GT15-75ABUS2L) cannot be mounted on another unit.

*4 The unit cannot be mounted on a unit in group B.

Example) When mounting a video/RGB input unit, MELSECNET/H communication unit, and serial communication unit



1.4 Connection Cables for the Respective Connection

To connect the GOT to a device in the respective connection type, connection cables between the GOT and a device are necessary.

For cables needed for each connection, refer to each chapter for connection.

For the dimensions of connection cables and connector shapes, refer to the following.

GOT2000 Series User's Manual (Hardware)

GOT connector specifications

The following shows the connector specifications on the GOT side.

Refer to the following table when preparing connection cables by the user.

RS-232 interface

The following connector or equivalent connector is used for the RS-232 interface of the GOT and the RS-232 communication unit.

For the GOT side of the connection cable, use a connector and connector cover applicable to the GOT connector.

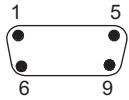
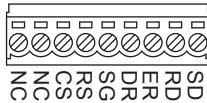
■Connector specifications

| GOT | Connector type | Connector model | Manufacturer |
|--|--|------------------------|--------------------------|
| GT27, GT25, GT23, GT2107-W, GT2105-QTBDS, GT2105-QMBDS, GS25, GS21 | 9-pin D-sub (male) #4-40UNC inch screw thread | 17LE-23090-27(D3CH)-FA | DDK Ltd. |
| GT15-RS2-9P | 9-pin D-sub (male) #4-40UNC inch screw thread | 17LE-23090-27(D3CH)-FA | DDK Ltd. |
| GT01-RS4-M | | JES-9P-2A3A | J.S.T.MFG.CO.,LTD. (JST) |
| GT2104-RTBD GT2104-PMBDS2 GT2103-PMBDS2 | 9-pin terminal block ^{*1*2} | MC1.5/9-G-3.5BK | PHOENIX CONTACT Inc |

*1 The terminal block (MC1.5/9-ST-3.5 or corresponding product) of the cable side is packed together with the GT2104-RTBD, GT2103-PMBDS2.

*2 The applicable solderless terminal of the terminal block is AI 0.25-6BU (AWG24) (PHOENIX CONTACT Inc.).
When fabricating a connection cable, use CRIMPFOX 6 (PHOENIX CONTACT Inc.) for crimping tool.

■Connector pin arrangement

| GT27, GT25, GT23, GT2107-W, GT2105-QTBDS, GT2105-QMBDS, GS25, GS21, GT15-RS2-9P, GT01-RS4-M | GT2104-RTBD, GT2104-PMBDS2, GT2103-PMBDS2 |
|--|---|
| GOT main part connector see from the front  9-pin D-sub (male) | See from the back of a GOT main part  9-pin terminal block |

RS-422/485 interface

The following connector or equivalent connector is used for the RS-422/485 interface of the GOT and the RS-422/485 communication unit.

For the GOT side of the connection cable, use a connector and connector cover applicable to the GOT connector.

■Connector model

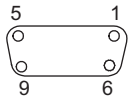
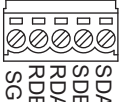
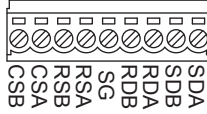
| GOT | Connector type | Connector model | Manufacturer |
|---|--|------------------------|------------------------------------|
| GT27, GT25, GT23, GT2107-W, GT2105-QTBDS, GT2105-QMBDS, GS25, GS21 | 9-pin D-Sub (female) M2.6 metric screw thread | 17LE-13090-27(D3AH)-FA | DDK Ltd. |
| GT2104-PMBD GT2103-PMBD | 5-pin terminal block ^{*1*3} | MC1.5/5-G-3.5BK | PHOENIX CONTACT Inc |
| GT2104-RTBD GT2104-PMBDS GT2104-PMBLS GT2103-PMBDS GT2103-PMBLS | 9-pin terminal block ^{*2*3} | MC1.5/9-G-3.5BK | PHOENIX CONTACT Inc |
| GT15-RS4-9S | 9-pin D-Sub (female) | 17LE-13090-27(D3AH)-FA | DDK Ltd. |
| GT01-RS4-M | M2.6 metric screw thread | JES-9S-2A3B14 | J.S.T.MFG.CO.,LTD. (JST) |
| GT15-RS4-TE | - | SL-SMT3.5/10/90F BOX | Weidmüller Interface GmbH & Co. KG |

*1 The terminal block (MC1.5/5-ST-3.5 or corresponding product) of the cable side is packed together with the GT2103-PMBD.

*2 The terminal block (MC1.5/9-ST-3.5 or corresponding product) of the cable side is packed together with the GT2104-RTBD, GT2103-PMBDS, GT2103-PMBLS.

*3 The applicable solderless terminal of the terminal block is AI 0.25-6BU (AWG24) (PHOENIX CONTACT Inc.).
When fabricating a connection cable, use CRIMPFOX 6 (PHOENIX CONTACT Inc.) for crimping tool.

■Connector pin arrangement

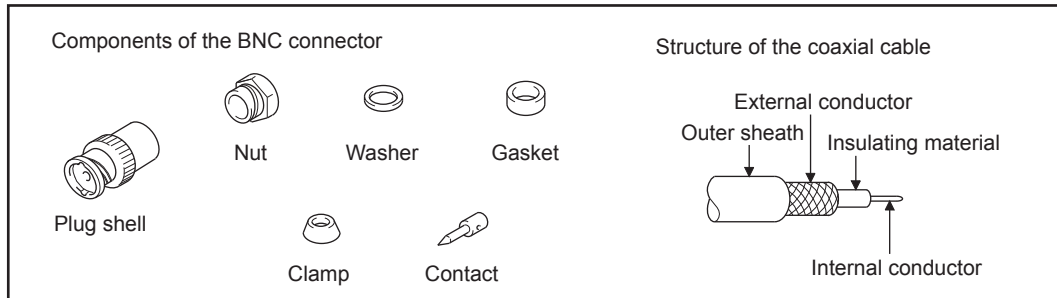
| GT27, GT25, GT23, GT2107-W, GT2105-QTBDS, GT2105-QMBDS, GS25, GS21, GT15-RS4-9P, GT01-RS4-M | GT2104-PMBD, GT2103-PMBD | GT2104-RTBD, GT2104-PMBDS, GT2104-PMBLS, GT2103-PMBDS, GT2103-PMBLS |
|--|--|--|
| GOT main part connector see from the front  9-pin D-sub (female) | See from the back of a GOT main part  5-pin terminal block | See from the back of a GOT main part  9-pin terminal block |

Coaxial cable connector connection method

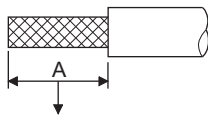
The following describes the method for connecting the BNC connector (connector plug for coaxial cable) and the cable.

⚠ CAUTION

- Solder the coaxial cable connectors properly. Insufficient soldering may result in malfunctions.



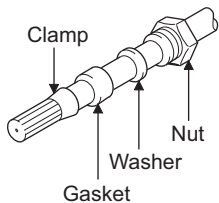
1. Remove the external sheath of the coaxial cable with dimensions as shown below.



Cut this portion of the outer sheath

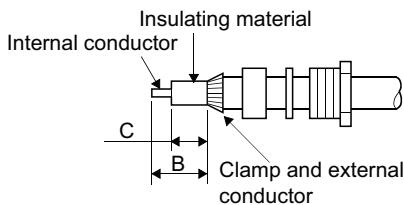
| Cable in use | A |
|------------------|-------|
| 3C-2V | 15 mm |
| 5C-2V, 5C-2V-CCY | 10 mm |

2. Pass the nut, washer, gasket, and clamp through the coaxial cable as shown on the left and loosen the external conductor.



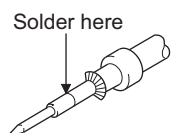
3. Cut the external conductor, insulating material, and internal conductor with the dimensions as shown below.

Note that the external conductor should be cut to the same dimension as the tapered section of the clamp and smoothed down to the clamp.

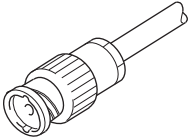


| Cable in use | B | C |
|------------------|------|------|
| 3C-2V | 6 mm | 3 mm |
| 5C-2V, 5C-2V-CCY | 7 mm | 5 mm |

4. Solder the contact to the internal conductor.



- 5.** Insert the contact assembly shown in step 4 into the plug shell and screw the nut into the plug shell.



Precautions for soldering

Note the following precautions when soldering the internal conductor and contact.

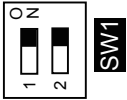
- Make sure that the solder does not bead up at the soldered section.
- Make sure there are no gaps between the connector and cable insulator or they do not cut into each other.
- Perform soldering quickly so the insulation material does not become deformed.

Terminating resistors of GOT

The following shows the terminating resistor specifications on the GOT side.
When setting the terminating resistor in each connection type, refer to the following.

RS-422/485 communication unit

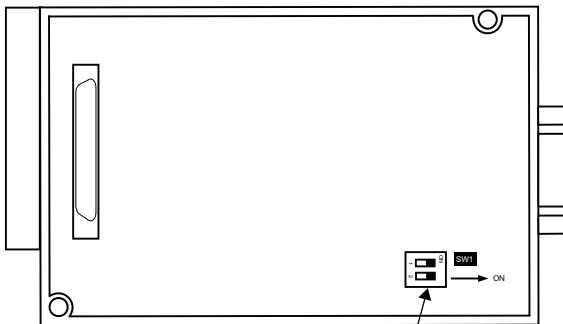
Set the terminating resistor using the terminating resistor setting switch.



| Terminating resistor*1 | Switch No. | |
|------------------------|------------|-----|
| | 1 | 2 |
| 100 OHM | ON | ON |
| Disable | OFF | OFF |

*1 The default setting is "Disable".

- For RS422/485 communication unit

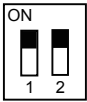


Terminating resistor setting switch

Rear view of RS-422/485 communication unit.

GT27

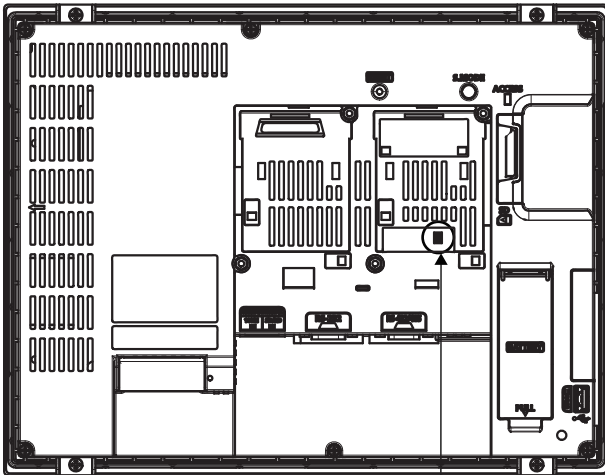
Set the terminating resistor using the terminating resistor setting switch.



| Terminating resistor ^{*1} | Switch No. | |
|------------------------------------|------------|-----|
| | 1 | 2 |
| Enable | ON | ON |
| Disable | OFF | OFF |

*1 The default setting is "Disable".

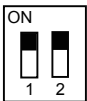
- For GT2710-V



Terminating resistor setting switch
(inside the cover)

GT25 (except GT25-W and GT2505-V)

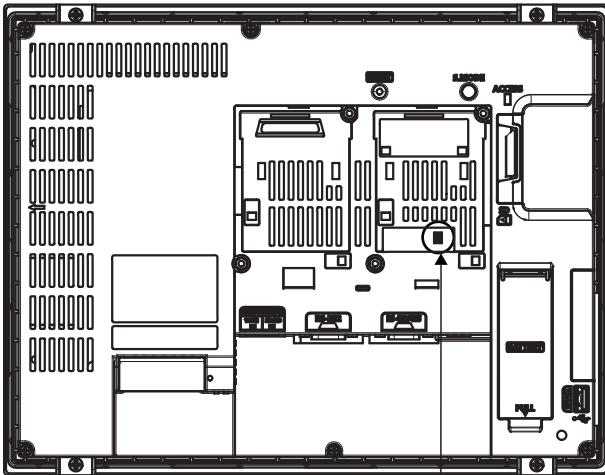
Set the terminating resistor using the terminating resistor setting switch.



| Terminating resistor*1 | Switch No. | |
|------------------------|------------|-----|
| | 1 | 2 |
| Enable | ON | ON |
| Disable | OFF | OFF |

*1 The default setting is "Disable".

- For GT2510-V



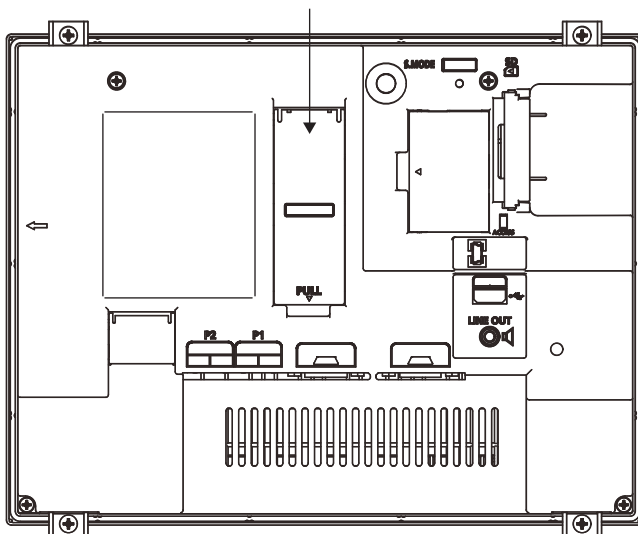
Terminating resistor setting switch
(inside the cover)

GT25-W

Set the terminating resistor using the terminating resistor selector.

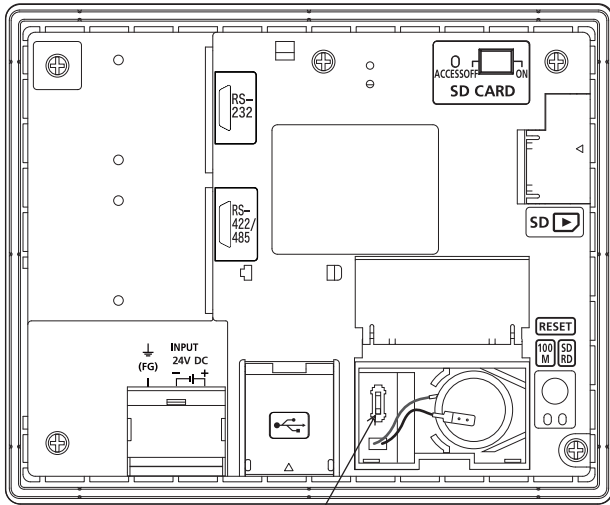
- For GT2510-WX

Terminating resistor selector switch
(inside the cover)



GT2505-V

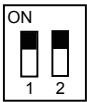
Set the terminating resistor using the terminating resistor selector.



Terminating resistor selector switch

GT23

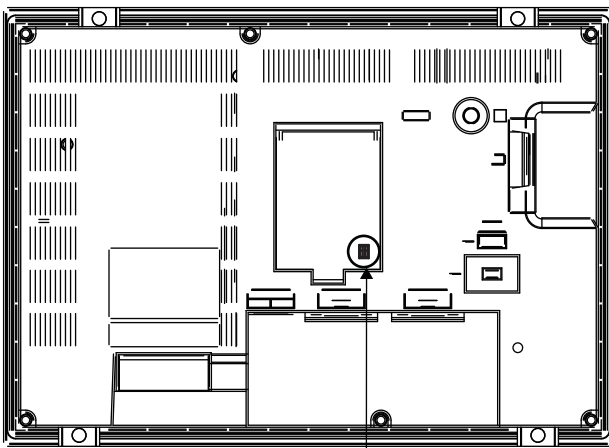
Set the terminating resistor using the terminating resistor setting switch.



| Terminating resistor ^{*1} | Switch No. | |
|------------------------------------|------------|-----|
| | 1 | 2 |
| Enable | ON | ON |
| Disable | OFF | OFF |

*1 The default setting is "Disable".

• For GT2310-V

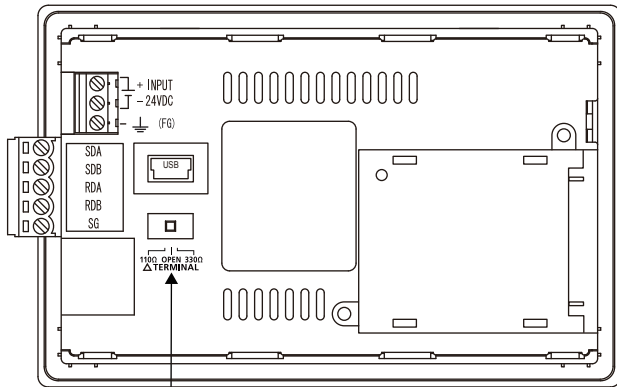


Terminating resistor setting switch
(inside the cover)

GT21

Set the terminating resistor using the terminating resistor setting switch.

- For GT2103-PMBD

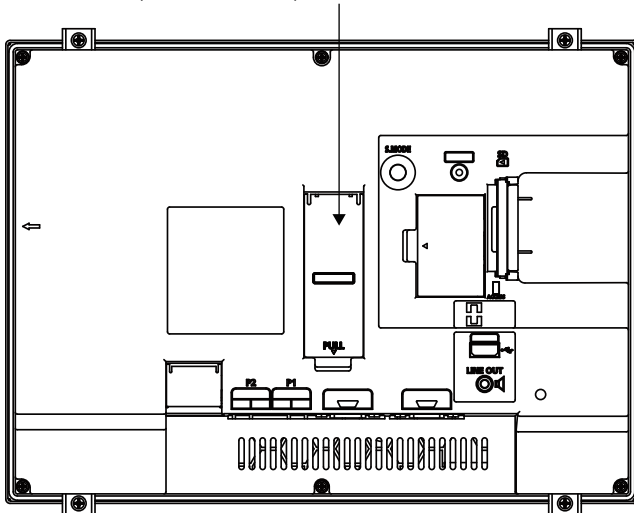


Terminating resistor selector switch

GS25

Set the terminating resistor using the terminating resistor selector.

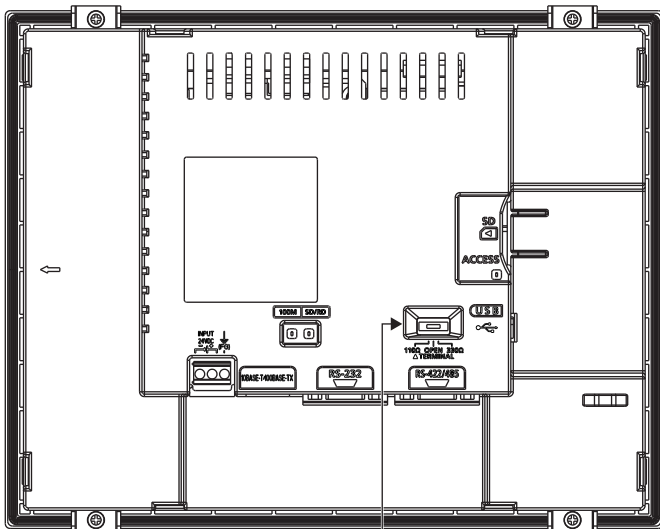
Terminating resistor selector switch
(inside the cover)



GS21-W-N

Set the terminating resistor using the terminating resistor setting switch.

- For GS2110-WTBD-N



Terminating resistor selector switch

Point

- Terminating resistor selector switch position

The position of the terminating resistor selector switch depends on the GOT type.

For the details, refer to the following.

GOT2000 Series User's Manual (Hardware)

- Terminating resistor of GS21-W

The terminating resistor of GS21-W is fixed to 330 Ω .

For the details, refer to the following.

GOT SIMPLE Series User's Manual

Setting the RS-232/485 signal conversion adaptor

Set the 2-wire/4-wire terminating resistor setting switch according to the connection type.

Point

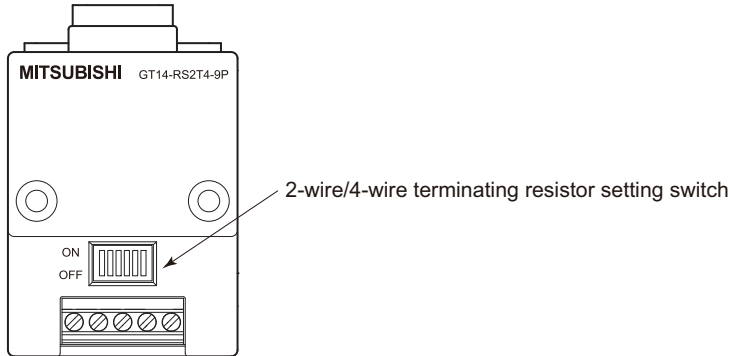
Enable the 5V power supply

Make sure to validate "Enable the 5V power supply" in the [RS232 Setting] to operate the RS-232/485 signal conversion adaptor.

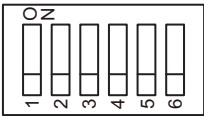
☞ Page 48 I/F communication setting

When validating the function using the utility function of the GOT main unit, refer to the following manual.

📖 GOT2000 Series User's Manual (Utility)



Setting the 2-wire/4-wire terminating resistor setting switch



| Setting item | Set value | Switch No. | | | | | |
|----------------------|----------------|------------|-----|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 | 6 |
| 2-wire/4-wire | 2-wire (1Pair) | ON | ON | - | - | - | OFF |
| | 4-wire (2Pair) | OFF | OFF | - | - | - | OFF |
| Terminating resistor | 110Ω | - | - | ON | OFF | OFF | OFF |
| | OPEN | - | - | OFF | OFF | OFF | OFF |
| | 330Ω | - | - | OFF | ON | ON | OFF |

Point

RS-232/485 signal conversion adapter

For details on the RS-232/485 signal conversion adapter, refer to the following manual.

📖 GT14-RS2T4-9P RS-232/485 Signal Conversion Adapter User's Manual

1.5 Verifying GOT Recognizes Connected Equipment

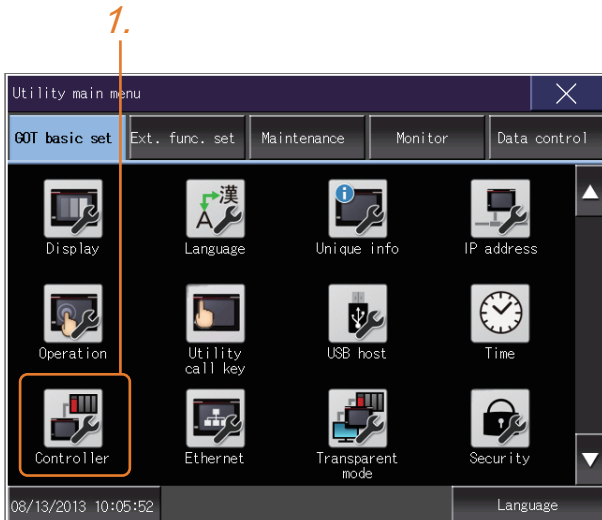
Verify the GOT recognizes controllers on [Communication Settings] of the Utility.

- Channel number of communication interface, communication drivers allocation status
- Communication unit installation status

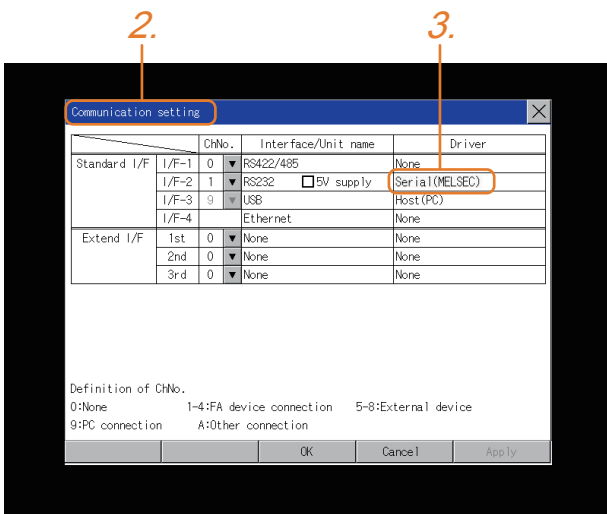
For details on the Utility, refer to the following manual.

📖 GOT2000 Series User's Manual (Utility)

1. After powering up the GOT, touch [GOT basic set] → [Controller] from the Utility.



2. The [Communication Settings] appears.



3. Verify that the communication driver name to be used is displayed in the communication interface box to be used.

4. When the communication driver name is not displayed normally, carry out the following procedure again.

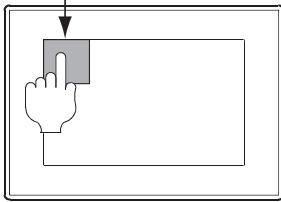
📖 Page 33 Setting the Communication Interface

Utility

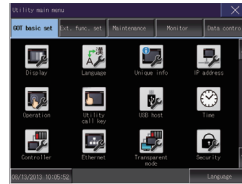
- How to display Utility (at default)

Utility call key

1-point press on GOT screen
upper-left corner



Utility display



- Utility call


When setting [Pressing time] to other than 0 second on the setting screen of the utility call key, press and hold the utility call key until the buzzer sounds. For the setting of the utility call key, refer to the following.

 GOT2000 Series User's Manual (Utility)

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication setting] after writing [Controller Setting] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

1.6 Checking for Normal Monitoring

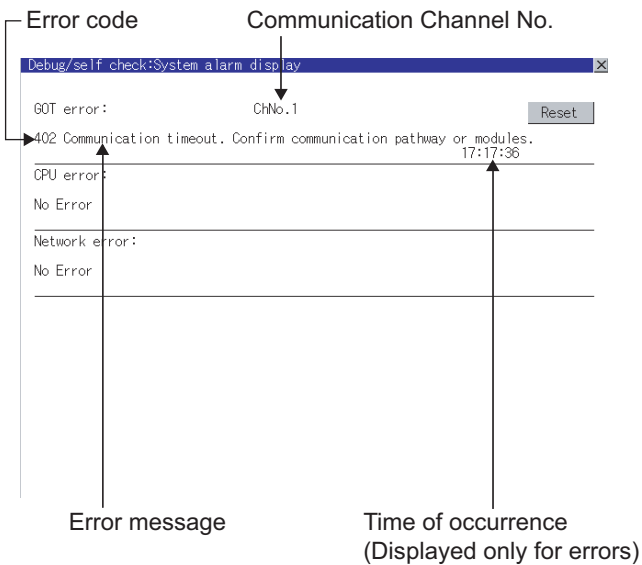
Check on the GOT

Check for errors occurring on the GOT

Presetting the system alarm to project data allows you to identify errors occurred on the GOT, PLC CPU, servo amplifier and communications.

For details on the operation method of the GOT Utility screen, refer to the following manual.

GOT2000 Series User's Manual (Utility)



Point

Alarm popup display

With the alarm popup display function, alarms are displayed as a popup display regardless of whether an alarm display object is placed on the screen or not (regardless of the display screen).

Since comments can be flown from right to left, even a long comment can be displayed all.

For details of the alarm popup display, refer to the following manual.

GT Designer3 (GOT2000) Screen Design Manual

Perform an I/O check

Whether the PLC can communicate with the GOT or not can be checked by the I/O check function.

If this check ends successfully, it means correct communication interface settings and proper cable connection.

Display the I/O check screen by Main Menu.

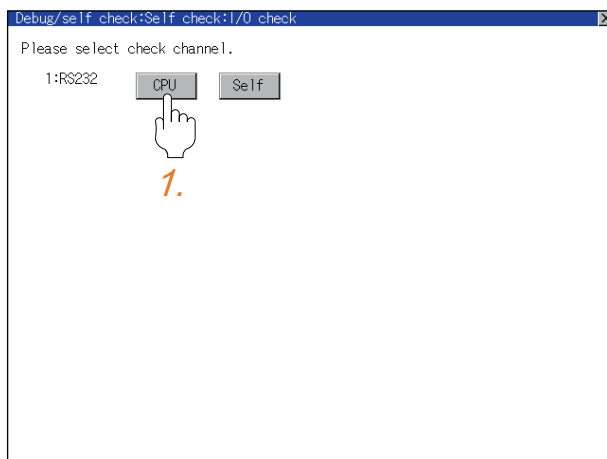
- Display the I/O check screen by [Main menu] → [Self check] → [I/O check].

For details on the I/O check, refer to the following manual:

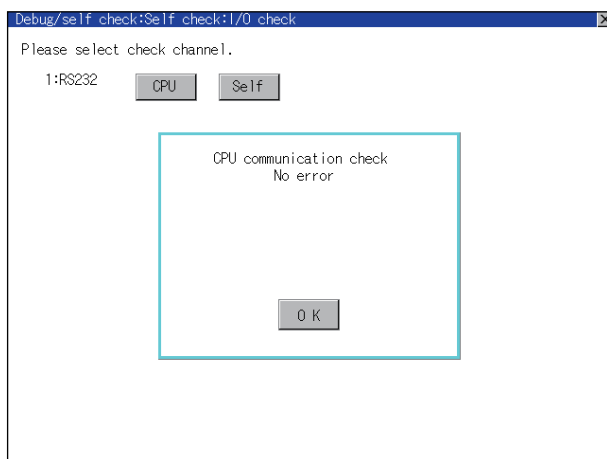
 GOT2000 Series User's Manual (Utility)

1. Touch [CPU] on the I/O check screen.

Touching [CPU] executes the communication check with the connected PLC.



2. When the communication screen ends successfully, the screen on the left is displayed.

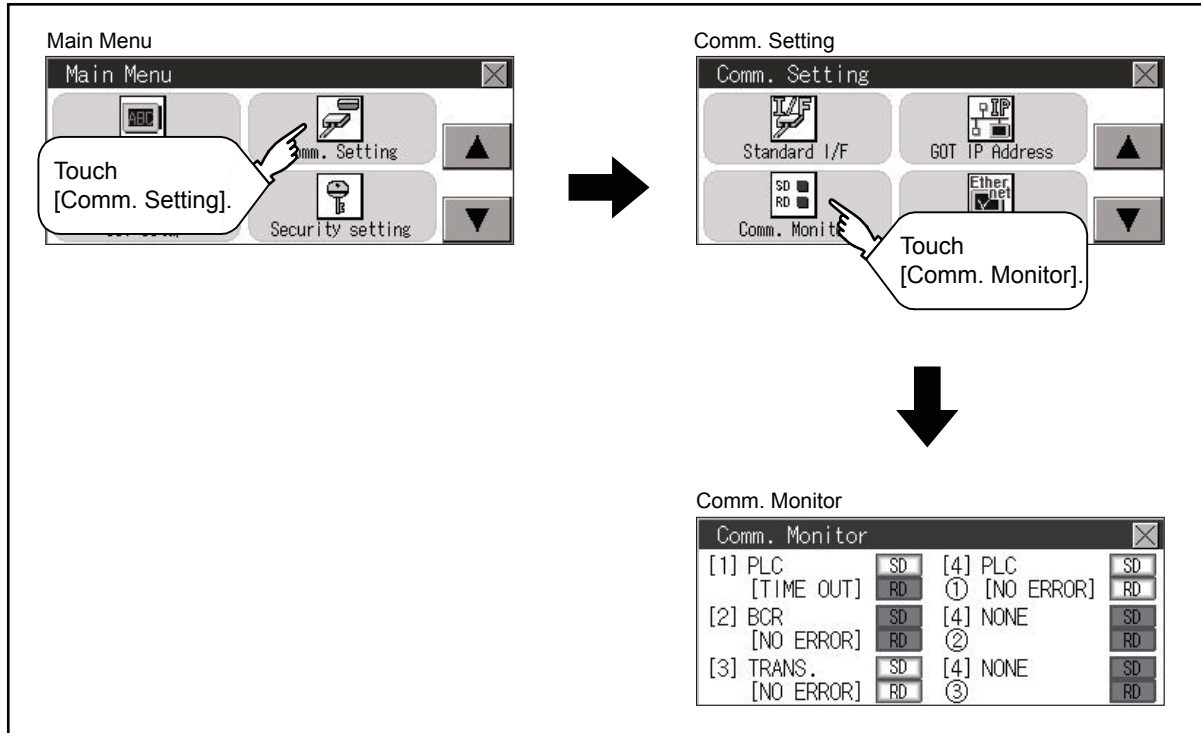


Communication monitoring function

The communication monitoring is a function that checks whether the PLC can communicate with the GOT.
 If this check ends successfully, it means correct communication interface settings and proper cable connection.
 Display the communication monitoring function screen by [Main Menu] → [Comm. Setting] → [Comm. Monitor].
 For details on the communication monitoring function, refer to the following manual:

📖 GOT2000 Series User's Manual (Utility)

(Operation of communication monitoring function screen)



Confirming the communication state on the GOT side (For Ethernet connection)

Confirming the communication state on Windows, GT Designer3

■When using the Windows Command Prompt

Execute a Ping command at the Command Prompt of Windows.

- At normal communication

```
C:\>Ping 192.168.3.18
```

```
Reply from 192.168.3.18: bytes=32 time<1ms TTL=64
```

- At abnormal communication

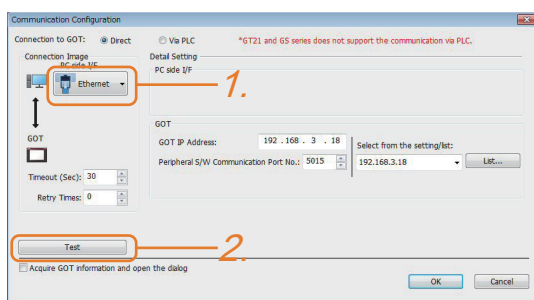
```
C:\>Ping 192.168.3.18
```

```
Request timed out.
```

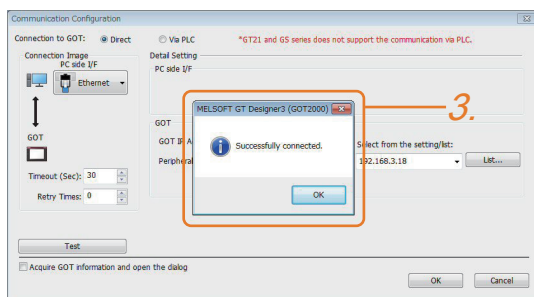
■When using the [Connection Test] of GT Designer3

Select [Communication] → [Communication settings] from the menu to display [TEST].

1. Set the [PC side I/F] to the [Ethernet].
2. Specify the [GOT IP Address] of the [Communication Configuration] and click the [Test] button.



3. Check if GT Designer3 has been connected to the GOT.



■At abnormal communication

At abnormal communication, check the followings and execute the Ping command or [Connection Test] again.

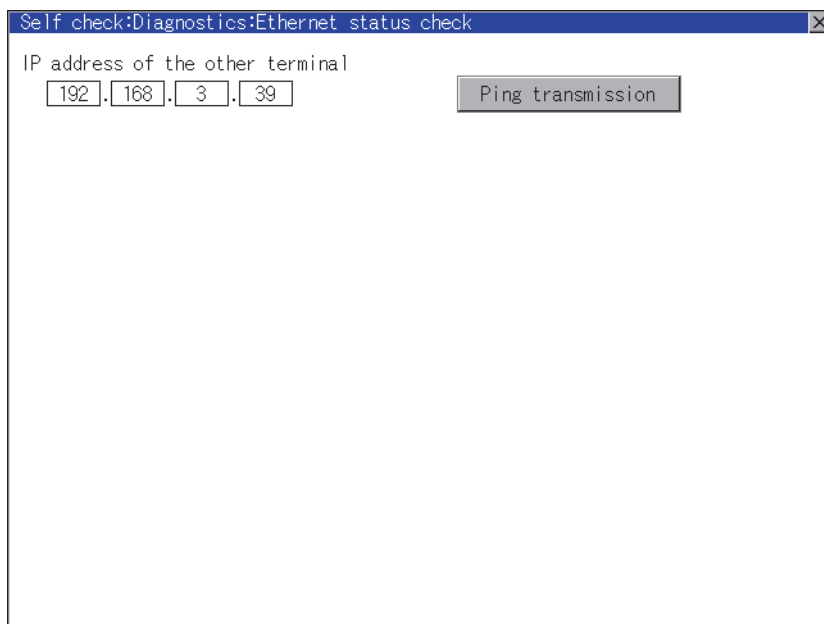
- Mounting condition of Ethernet communication unit
- Cable connecting condition
- Confirmation of [Communication Settings]
- IP address of GOT specified by Ping command

Confirming the communication state on the GOT

[PING Test] can be confirmed by the Utility screen of the GOT.

For details on the operation method of the GOT Utility screen, refer to the following manual.

 GOT2000 Series User's Manual (Utility)



Confirming the communication state to each station (Station monitoring function)

The station monitoring function detects the faults (communication timeout) of the stations monitored by the GOT. When detecting the abnormal state, it allocates the data for the faulty station to the GOT special register (GS).

No. of faulty stations

■Ethernet connection (Except for Ethernet multiple connection)

Total No. of the faulty CPU is stored.

| Device | b15 to b8 | b7 to b0 |
|--------|-------------|------------------------|
| GS230 | (00H fixed) | No. of faulty stations |

■Ethernet multiple connection

Total No. of the faulty connected equipment is stored.

| Channel | Device | b15 to b8 | b7 to b0 |
|---------|--------|-------------|------------------------|
| Ch1 | GS280 | (00H fixed) | No. of faulty stations |
| Ch2 | GS300 | (00H fixed) | No. of faulty stations |
| Ch3 | GS320 | (00H fixed) | No. of faulty stations |
| Ch4 | GS340 | (00H fixed) | No. of faulty stations |



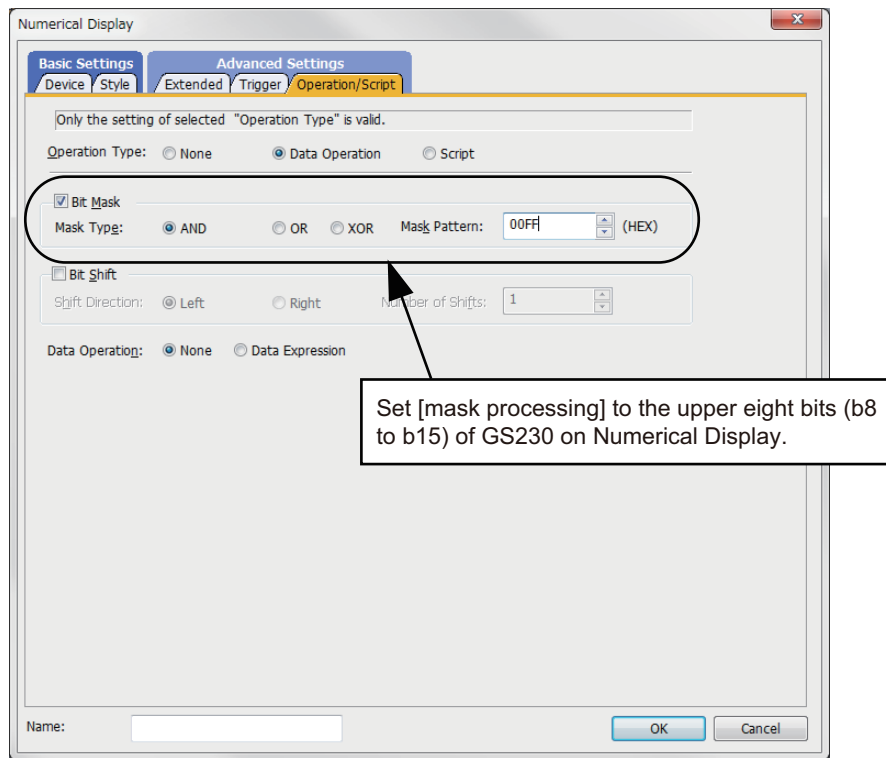
When monitoring GS230 on Numerical Display

When monitoring GS230 on Numerical Display, check [mask processing] with data operation tab as the following.

For the data operation, refer to the following manual.

📖GT Designer3 (GOT2000) Screen Design Manual

- Numerical Display (Data Operation tab)



Faulty station information

The bit corresponding to the faulty station is set. (0: Normal, 1: Abnormal)

The bit is reset after the fault is recovered.

■ Ethernet connection

Connected Ethernet Controller Setting

Set the controllers to be connected to the Ethernet-linked GOT.

About Unit Type

| Ethernet setting No. | Host | Net No. | Station | Unit Type | IP Address | Port No. | Communication |
|----------------------|------|---------|---------|-----------------|--------------|----------|---------------|
| GS231 bit 0 | 1 | 1 | 1 | QJ71E71/LJ71E71 | 192.168.3.39 | 5001 | UDP |
| GS231 bit 1 | 2 | 1 | 2 | QJ71E71/LJ71E71 | 192.168.3.40 | 5001 | UDP |
| GS231 bit 2 | 3 | 1 | 3 | AJ71QE71 | 192.168.3.41 | 5001 | UDP |
| GS231 bit 3 | 4 | 1 | 4 | AJ71E71 | 192.168.3.42 | 5006 | UDP |

| Device | Ethernet setting No. | | | | | | | | | | | | | | | |
|--------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| GS231 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| GS232 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| GS233 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| GS234 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |
| GS235 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 |
| GS236 | 96 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 |
| GS237 | 112 | 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 |
| GS238 | 128 | 127 | 126 | 125 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 |

The following shows the Ethernet setting numbers for each device in the Ethernet multiple connection.

| Device | | | | Ethernet setting No. | | | | | | | | | | | | | | | |
|--------|-------|-------|-------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ch1 | Ch2 | Ch3 | Ch4 | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| GS281 | GS301 | GS321 | GS341 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| GS282 | GS302 | GS322 | GS342 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| GS283 | GS303 | GS323 | GS343 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| GS284 | GS304 | GS324 | GS344 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |
| GS285 | GS305 | GS325 | GS345 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 |
| GS286 | GS306 | GS326 | GS346 | 96 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 |
| GS287 | GS307 | GS327 | GS347 | 112 | 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 |
| GS288 | GS308 | GS328 | GS348 | 128 | 127 | 126 | 125 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 |

■CC-Link IE TSN connection

| Device | Station number | | | | | | | | | | | | | | | |
|--------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| GS1281 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| GS1282 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 |
| GS1283 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 | 32 |
| GS1284 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 | 48 |
| GS1285 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 | 64 |
| GS1286 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 | 80 |
| GS1287 | 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 |
| GS1288 | - | - | - | - | - | - | - | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 | 112 |

■Connection with the temperature controller (AZBIL temperature controller (DMC50))

| Device | | | | Station number-Sub Station | | | | | | | | | | | | | | | |
|--------|-------|-------|-------|----------------------------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ch1 | Ch2 | Ch3 | Ch4 | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| GS281 | GS301 | GS321 | GS341 | 1-15 | 1-14 | 1-13 | 1-12 | 1-11 | 1-10 | 1-9 | 1-8 | 1-7 | 1-6 | 1-5 | 1-4 | 1-3 | 1-2 | 1-1 | 1-0 |
| GS282 | GS302 | GS322 | GS342 | 2-15 | 2-14 | 2-13 | 2-12 | 2-11 | 2-10 | 2-9 | 2-8 | 2-7 | 2-6 | 2-5 | 2-4 | 2-3 | 2-2 | 2-1 | 2-0 |
| GS283 | GS303 | GS323 | GS343 | 3-15 | 3-14 | 3-13 | 3-12 | 3-11 | 3-10 | 3-9 | 3-8 | 3-7 | 3-6 | 3-5 | 3-4 | 3-3 | 3-2 | 3-1 | 3-0 |
| GS284 | GS304 | GS324 | GS344 | 4-15 | 4-14 | 4-13 | 4-12 | 4-11 | 4-10 | 4-9 | 4-8 | 4-7 | 4-6 | 4-5 | 4-4 | 4-3 | 4-2 | 4-1 | 4-0 |
| GS285 | GS305 | GS325 | GS345 | 5-15 | 5-14 | 5-13 | 5-12 | 5-11 | 5-10 | 5-9 | 5-8 | 5-7 | 5-6 | 5-5 | 5-4 | 5-3 | 5-2 | 5-1 | 5-0 |
| GS286 | GS306 | GS326 | GS346 | 6-15 | 6-14 | 6-13 | 6-12 | 6-11 | 6-10 | 6-9 | 6-8 | 6-7 | 6-6 | 6-5 | 6-4 | 6-3 | 6-2 | 6-1 | 6-0 |
| GS287 | GS307 | GS327 | GS347 | 7-15 | 7-14 | 7-13 | 7-12 | 7-11 | 7-10 | 7-9 | 7-8 | 7-7 | 7-6 | 7-5 | 7-4 | 7-3 | 7-2 | 7-1 | 7-0 |
| GS288 | GS308 | GS328 | GS348 | 8-15 | 8-14 | 8-13 | 8-12 | 8-11 | 8-10 | 8-9 | 8-8 | 8-7 | 8-6 | 8-5 | 8-4 | 8-3 | 8-2 | 8-1 | 8-0 |

■Connection types other than the above

The supported device differs depending on the communication driver to be used.

- Communication drivers supported by the host station only

| Communication driver list | | |
|-------------------------------|-------------------------|----------------------------------|
| Bus Q | Bus A/QnA | Serial(MELSEC) |
| AJ71QC24, MELDAS C6* | AJ71C24/UC24 | CC-Link(G4) |
| MELSEC-FX | MELSEC-WS | OMRON SYSMAC |
| YASKAWA GL | YASKAWA CP9200 (H) | YASKAWA CP9300MS (MC compatible) |
| YASKAWA MP2000/MP900/CP9200SH | AB Control/CompactLogix | SHARP JW |
| TOSHIBA PROSEC T/V | HITACHI IES HIDIC H | HITACHI IES HIDIC H(Protocol2) |
| PANASONIC MEWNET-FP | PANASONIC MEWTOCOL-7 | SIEMENS S7-200 |
| YOKOGAWA FA500/FA-M3/STARDOM | Serial(KEYENCE) | HITACHI S10mini/S10V |
| FUJI MICREX-SX SPH | SHIBAURA MACHINE TCmini | SICK Flexi Soft |
| IAI X-SEL | PROFIBUS DP | DeviceNet |

The host station uses the 0th bit at the top.

Ch1: GS281.b0

Ch2: GS301.b0

Ch3: GS321.b0

Ch4: GS341.b0

- Communication drivers supported by the other stations

| Communication driver list | | |
|--|--------------------------------------|--|
| CC-Link IE Controller Network | CC-Link IE Field Network | MEI Nexgenie |
| AB SLC500 AB 1:N connection | AB MicroLogix | AB MicroLogix(Extended) |
| SIEMENS S7-300/400 | JTEKT TOYOPUC-PC | FUJI MICREX-F |
| GE(SNP-X) | KOYO KOSTAC/DL | LS Industrial Systems MASTER-K |
| Hirata HNC | IAI robocylinder | Panasonic MINAS A4 |
| Panasonic MINAS A5 | Muratec MPC | MELSERVO-J4,J3,J2S/M,JE |
| FREQROL 500/700/800,SENSORLESS SERVO | FREQROL 800 | FREQROL(Batch monitor) |
| OMRON THERMAC/INPANEL NEO | OMRON Digital Temperature Controller | AZBIL SDC/DMC |
| AZBIL DMC50 | RKC SR Mini HG (MODBUS) | FUJI Temperature Controller/Digital Controller |
| YOKOGAWA GREEN/UT100/UT2000/ UTAdvanced | SHINKO TECHNOS CONTROLLER | CHINO MODBUS device |
| MODBUS/RTU Master | | |

The following shows the supported devices.

| Device | | | | Station number | | | | | | | | | | | | | | | |
|--------|-------|-------|-------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ch1 | Ch2 | Ch3 | Ch4 | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| GS281 | GS301 | GS321 | GS341 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0*1 |
| GS282 | GS302 | GS322 | GS342 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 |
| GS283 | GS303 | GS323 | GS343 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 | 32 |
| GS284 | GS304 | GS324 | GS344 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 | 48 |
| GS285 | GS305 | GS325 | GS345 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 | 64 |
| GS286 | GS306 | GS326 | GS346 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 | 80 |
| GS287 | GS307 | GS327 | GS347 | 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 |
| GS288 | GS308 | GS328 | GS348 | 127 *1*2 | 126 *1*2 | 125 *1*2 | 124 *1*2 | 123 *1*2 | 122 *1*2 | 121 *1*2 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 | 112 |

*1 When CC-Link IE controller network connection is not used.

*2 When CC-Link IE field network connection is not used.

For details on the GS Device, refer to the following manual.

 GT Designer3 (GOT2000) Screen Design Manual

Network No., station No. notification

The network No. and station No. of the GOT in Ethernet connection are stored at GOT startup.

If connected by other than Ethernet, 0 is stored.

| Device | | | | Description |
|--------|-------|-------|-------|------------------------|
| CH1 | CH2 | CH3 | CH4 | |
| GS376 | GS378 | GS380 | GS382 | Network No. (1 to 239) |
| GS377 | GS379 | GS381 | GS383 | Station No. (1 to 64) |

When using the station monitoring function in the CC-Link IE Field Network connection

When a submaster station is on the network, use the CC-Link IE Field Network communication unit (GT15-J71GF13-T2) with the software version C or later.

The software version is the 10th digit of the serial number described on the rating plate of the unit.

MEMO

PART 2

CONNECTIONS TO NON-MITSUBISHI ELECTRIC PRODUCTS

2 IAI ROBOT CONTROLLER

3 AZBIL CONTROL EQUIPMENT

4 OMRON PLC

5 OMRON TEMPERATURE CONTROLLER

6 KEYENCE PLC

7 KOYO EI PLC

8 JTEKT PLC

9 SHARP PLC

10 SHINKO TECHNOS INDICATING CONTROLLER

11 CHINO CONTROLLER

12 TOSHIBA PLC

13 SHIBAURA MACHINE PLC

14 PANASONIC SERVO AMPLIFIER















15 PANASONIC INDUSTRIAL DEVICES SUNX PLC


2 IAI ROBOT CONTROLLER


- Page 82 Connectable Model List
- Page 86 System Configuration
- Page 106 Connection Diagram
- Page 115 GOT Side Settings
- Page 117 Robot Controller Side Setting
- Page 123 Settable Device Range
- Page 123 Precautions

2.1 Connectable Model List

The following table shows the connectable models.

| Series | Model name | Clock | Communication Type | Connectable GOT | Refer to | | | | |
|---------|------------|-------|--------------------|--|--|------|--|--|--|
| X-SEL | XSEL-J | × | RS-232 |       |  Page 86 System Configuration for connecting to X-SEL, SSEL, ASEL, PSEL | | | | |
| | XSEL-K | | | | | | | | |
| | XSEL-KE | | | | | | | | |
| | XSEL-KT | | | | | | | | |
| | XSEL-KET | | | | | | | | |
| | XSEL-P | | | | | | | | |
| | XSEL-Q | | | | | | | | |
| | XSEL-JX | | | | | | | | |
| | XSEL-KX | | | | | | | | |
| | XSEL-KTX | | | | | | | | |
| | XSEL-PX | | | | | | | | |
| | XSEL-QX | | | | | | | | |
| | SSEL | | | | | SSEL | | | |
| ASEL | ASEL | | | | | | | | |
| PSEL | PSEL | | | | | | | | |
| PCON | PCON-C | × | RS-232 |       |  Page 89 System Configuration for connecting to PCON, ACON, SCON, ERC2 | | | | |
| | PCON-CG | | RS-422 | | | | | | |
| | PCON-CF | | | | | | | | |
| | PCON-CY | | | | | | | | |
| | PCON-SE | | | | | | | | |
| | PCON-PL | | | | | | | | |
| | PCON-PO | | | | | | | | |
| | PCON-CA | | | | | | | | |
| | PCON-CFA | | | | | | | | |
| | PCON-CB | | | | | | | | |
| | PCON-CFB | | | | | | | | |
| | ACON | | ACON-C | | | | | | |
| | | | ACON-CG | | | | | | |
| ACON-CY | | | | | | | | | |
| ACON-SE | | | | | | | | | |
| ACON-PL | | | | | | | | | |
| ACON-PO | | | | | | | | | |
| ACON-CB | | | | | | | | | |
| SCON | SCON-C | | | | | | | | |
| | SCON-CA | | | | | | | | |
| | SCON-CB | | | | | | | | |

| Series | Model name | Clock | Communication Type | Connectable GOT | Refer to |
|---------|------------|-------|--------------------|--|----------|
| EC | EC-S3 | × | RS-232 RS-422 |  | *2 *3 |
| | EC-S4 | | | | |
| | EC-S6 | | | | |
| | EC-S7 | | | | |
| | EC-S6□R | | | | |
| | EC-S7□R | | | | |
| | EC-S6□AH | | | | |
| | EC-S7□AH | | | | |
| | EC-S6□AHR | | | | |
| | EC-S7□AHR | | | | |
| | EC-R6 | | | | |
| | EC-R7 | | | | |
| | EC-RP4 | | | | |
| | EC-GS4 | | | | |
| | EC-GD4 | | | | |
| | EC-RR3 | | | | |
| | EC-RR4 | | | | |
| | EC-RR6 | | | | |
| | EC-RR7 | | | | |
| | EC-RR6□R | | | | |
| | EC-RR7□R | | | | |
| | EC-RR6□AH | | | | |
| | EC-RR7□AH | | | | |
| | EC-RR6□AHR | | | | |
| | EC-RR7□AHR | | | | |
| | EC-TC4 | | | | |
| | EC-TW4 | | | | |
| | EC-R6□W | | | | |
| | EC-R7□W | | | | |
| | EC-RR6□W | | | | |
| | EC-RR7□W | | | | |
| | EC-B6 | | | | |
| | EC-B7 | | | | |
| EC-B6U | | | | | |
| EC-B7U | | | | | |
| EC-S3R | | | | | |
| EC-S4R | | | | | |
| EC-RR3R | | | | | |
| EC-RR4R | | | | | |

| Series | Model name | Clock | Communication Type | Connectable GOT | Refer to |
|-----------|------------|-------|--------------------|--|----------|
| EC | EC-ST15 | × | RS-232 RS-422 |  | *2 *3 |
| | EC-RTC9 | | | | |
| | EC-RTC12 | | | | |
| | EC-S13 | | | | |
| | EC-S13X | | | | |
| | EC-S15 | | | | |
| | EC-S15X | | | | |
| | EC-RR6X□AH | | | | |
| | EC-RR7X□AH | | | | |
| | EC-WS10 | | | | |
| | EC-WS12 | | | | |
| | EC-GD5 | | | | |
| | EC-RP5 | | | | |
| | EC-TC5 | | | | |
| | EC-TW5 | | | | |
| | EC-S6□CR | | | | |
| | EC-S7□CR | | | | |
| | EC-S6AH□CR | | | | |
| | EC-S7AH□CR | | | | |
| | EC-S3□CR | | | | |
| | EC-S4□CR | | | | |
| | EC-GRB8M | | | | |
| | EC-GRB10M | | | | |
| | EC-GRB13M | | | | |
| EC-GRB13L | | | | | |
| EC-S10 | | | | | |
| EC-S10X | | | | | |

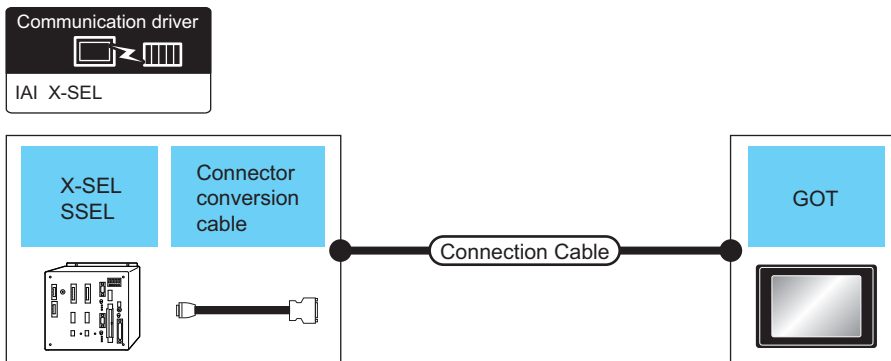
*1 For GS21, only GS21-W-N supports the RS-422 connection.

*2 Sample screen data are required for connection with EC series.
To obtain sample screen data, contact your local sales office.

*3 EC series with an ACR option is designed to be connected with RCON-EC.
The series cannot be directly connected with the GOT.

2.2 System Configuration

System Configuration for connecting to X-SEL, SSEL, ASEL, PSEL



| Controller | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|--|-----------------|--------------------|--|---------------|--------------------|-------|---------------------------------|
| Series | RS-232C adapter | Communication Type | Cable model Connection diagram number | | Option device *3 | Model | |
| X-SEL (Teaching connector) | - | RS-232 | CB-ST-E1MW050*1 or (User preparing) Page 106 RS-232 connection diagram 1) | 10m | - (Built into GOT) | | 1 GOT for 1 Controller |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | CB-ST-E1MW050*1 + (User preparing) Page 107 RS-232 connection diagram 4) or (User preparing) Page 107 RS-232 connection diagram 5) | 10m | - (Built into GOT) | | |
| X-SEL (General RS232C port connector) | - | RS-232 | (User preparing) Page 106 RS-232 connection diagram 2) | 10m | - (Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | (User preparing) Page 107 RS-232 connection diagram 6) | 10m | - (Built into GOT) | | |

| Controller | | | Connection cable | Max. distance | GOT | | Number of connectable equipment | |
|----------------------|----------------------------|--------------------|--|---------------|-----------------------------|-------------------------------|---------------------------------|--|
| Series | RS-232C adapter | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | | |
| SSEL ASEL PSEL | CB-SEL-SJ002 ^{*1} | RS-232 | CB-ST-E1MW050 ^{*1} | 10m | - (Built into GOT) | | 1 GOT for 1 Controller | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | CB-ST-E1MW050 ^{*1} + (User preparing) Page 107 RS-232 connection diagram 4) or (User preparing) Page 107 RS-232 connection diagram 5) | 10m | - (Built into GOT) | | | |

*1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

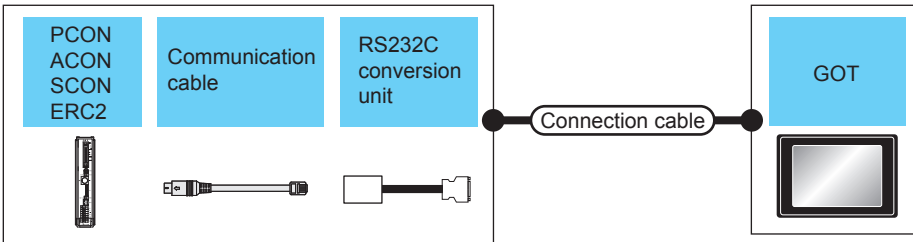
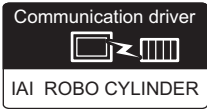
*3 GT25-W, GT2505-V does not support the option device.

System Configuration for connecting to PCON, ACON, SCON, ERC2






When connecting to one controller

■When using the RS-232 connection

- PCON, ACON, SCON, ERC2 (SIO specifications), ERC2 (NP/PN specifications)



| Controller | | | | Connection cable | | GOT | | Number of connectable equipment |
|---|-------------------------------------|-----------------------------------|--------------------|---------------------------------------|---------------|-------------------------------|-------|---------------------------------|
| Series | Communication cable | RS232C conversion unit | Communication Type | Connection diagram number | Max. distance | Option device ^{*5} | Model | |
| PCON ACON SCON ERC2 (NP/PN specifications) ^{*3} | CB-RCA-SIO050 ^{*1} (5m) | RCB-CV-MW ^{*1} (0.3m) | RS-232 | - | - | - (Built into GOT) | | 1 GOT for 1 Controller |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P ^{*4} | | |
| | | | | Page 108 RS-232 connection diagram 7) | 10m | - (Built into GOT) | | |

| Controller | | | | Connection cable | | GOT | | Number of connectable equipment |
|-----------------------------|--|------------------------|--------------------|---|---------------|--------------------|---|---------------------------------|
| Series | Communication cable | RS232C conversion unit | Communication Type | Connection diagram number | Max. distance | Option device *5 | Model | |
| ERC2 (SIO specifications)*2 | CB-ERC2-SIO020*1 + CB-ERC2-PWBIO □□□*1 or CB-ERC2-PWBIO □□□-RB*1 | RCB-CV-MW*1 (0.3m) | RS-232 | - | - | - (Built into GOT) |  | 1 GOT for 1 Controller |
| | | | | | | GT15-RS2-9P |  | |
| | | | | | | GT10-C02H-6PT9P*4 |  | |
| | | | |  Page 108 RS-232 connection diagram 7) | 10m | - (Built into GOT) |  | |

*1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.

*2 Use ERC2-□-□-□-□-SE-□-□.

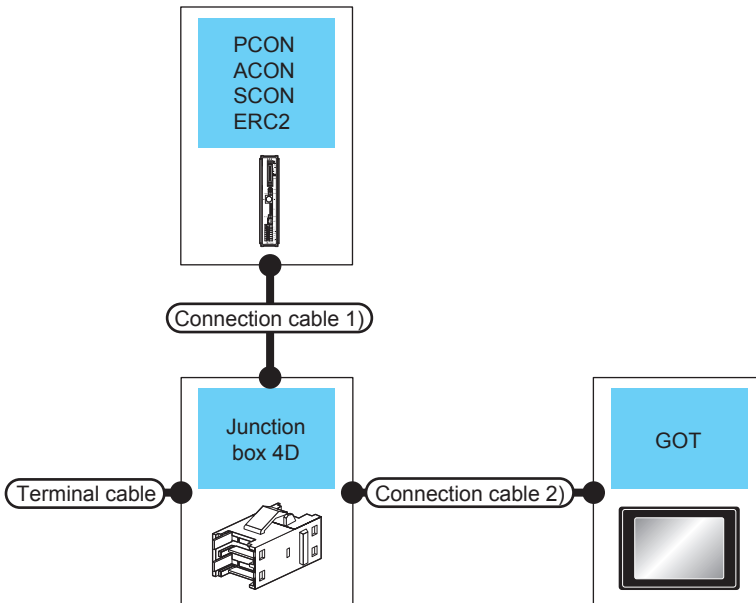
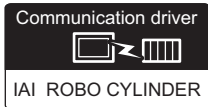
*3 Use ERC2-□-□-□-□-NP-□-□ or ERC2-□-□-□-□-PN-□-□.

*4 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.





















*5 GT25-W, GT2505-V does not support the option device.

■When using the RS-422/485 cable

- PCON, ACON, SCON, ERC2 (SIO specifications), ERC2 (NP/PN specifications)



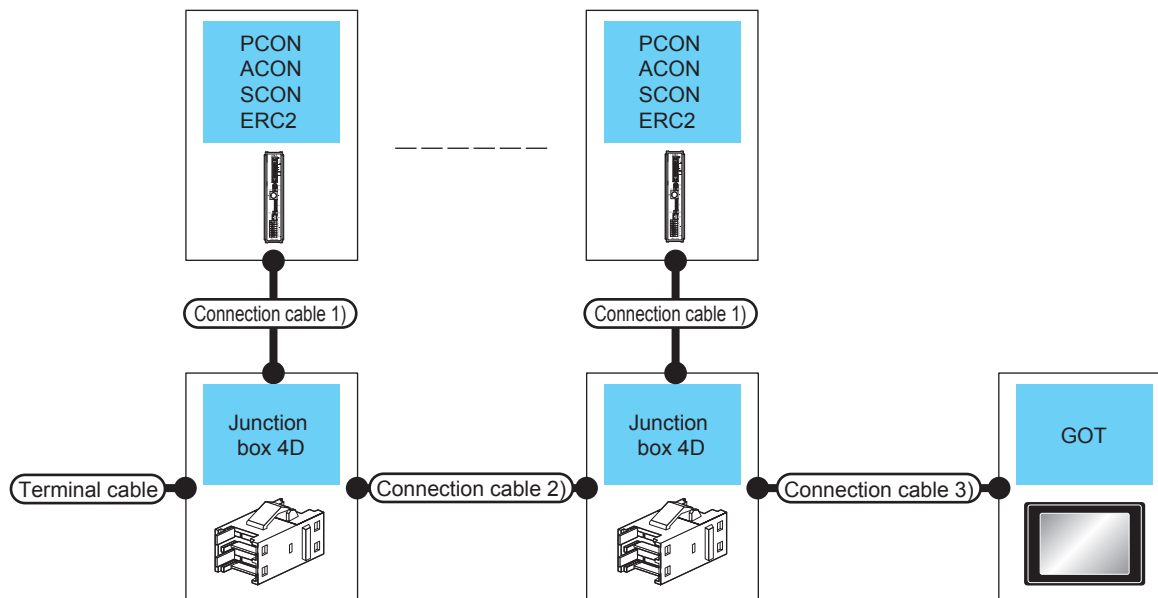
| Controller | Terminal cable | Connection cable 1) ^{*1} | Junction box 4D) ^{*2} | Connection cable 2) | GOT | | Max. distance | Number of connectable equipment |
|---|---|-----------------------------------|--------------------------------|--|--|-------------------|---------------|---------------------------------|
| Series | Connection diagram number | Cable model | Model name | Connection diagram number | Option device ^{*6*7} | Model | | |
| PCON ACON SCON ERC2 (NP/PN specifications) ^{*5} | Page 109 RS-422/485 connection diagram 1) | CB-RCB-CTL002 (0.2m) | 5-1473574-4 | Page 109 RS-422/485 connection diagram 3) | FA-LTBGT2R4CBL05(0.5m) ^{*3} FA-LTBGT2R4CBL10(1m) ^{*3} FA-LTBGT2R4CBL20(2m) ^{*3} | | 100m | 16 Controllers for 1 GOT |
| | | | | Page 110 RS-422/485 connection diagram 4) | - (Built into GOT) | ^{*8} | | |
| | | | | | GT15-RS4-9S | | | |
| | | | | | GT10-C02H-9SC | | | |
| | | | | Page 110 RS-422/485 connection diagram 5) | GT15-RS4-TE | | | |
| | | | | Page 113 RS-422/485 connection diagram 14) | - (Built into GOT) | | | |

| Controller | Terminal cable | Connection cable 1) ^{*1} | Junction box 4D ^{*2} | Connection cable 2) | GOT | | Max. distance | Number of connectable equipment |
|---|---|--|-------------------------------|--|--|---|---------------|---------------------------------|
| Series | Connection diagram number | Cable model | Model name | Connection diagram number | Option device ^{*6*7} | Model | | |
| ERC2 (SIO specifications) ^{*4} |  Page 109 RS-422/485 connection diagram 1) | CB-ERC2-CTL001 + CB-ERC2-PWBIO □□□ or CB-ERC2-PWBIO □□□- RB | 5-1473574-4 |  Page 109 RS-422/485 connection diagram 3) | FA-LTBGT2R4CBL05(0.5m) ^{*3} FA-LTBGT2R4CBL10(1m) ^{*3} FA-LTBGT2R4CBL20(2m) ^{*3} |   | 100m | 16 Controllers for 1 GOT |
| | | | |  Page 110 RS-422/485 connection diagram 4) | - (Built into GOT) |     ^{*8} | | |
| | | | | | GT15-RS4-9S |  | | |
| | | | | | GT10-C02H-9SC |     | | |
| | | | |  Page 110 RS-422/485 connection diagram 5) | GT15-RS4-TE |  | | |
| | | | |  Page 113 RS-422/485 connection diagram 14) | - (Built into GOT) |    | | |







*1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.
 *2 Product manufactured by Tyco Electronics. For details of the product, contact Tyco Electronics.
 *3 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
 *4 Use ERC2-□-□-□-□-□-SE-□-□.
 *5 Use ERC2-□-□-□-□-□-NP-□-□ or ERC2-□-□-□-□-□-PN-□-□.
 *6 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL□□.
 *7 GT2505-V does not support the option device.
 *8 Only available to GS21-W-N for GS21.

When connecting to multiple controllers

■PCON, ACON, SCON, ERC2 (SIO specifications), ERC2 (NP/PN specifications)

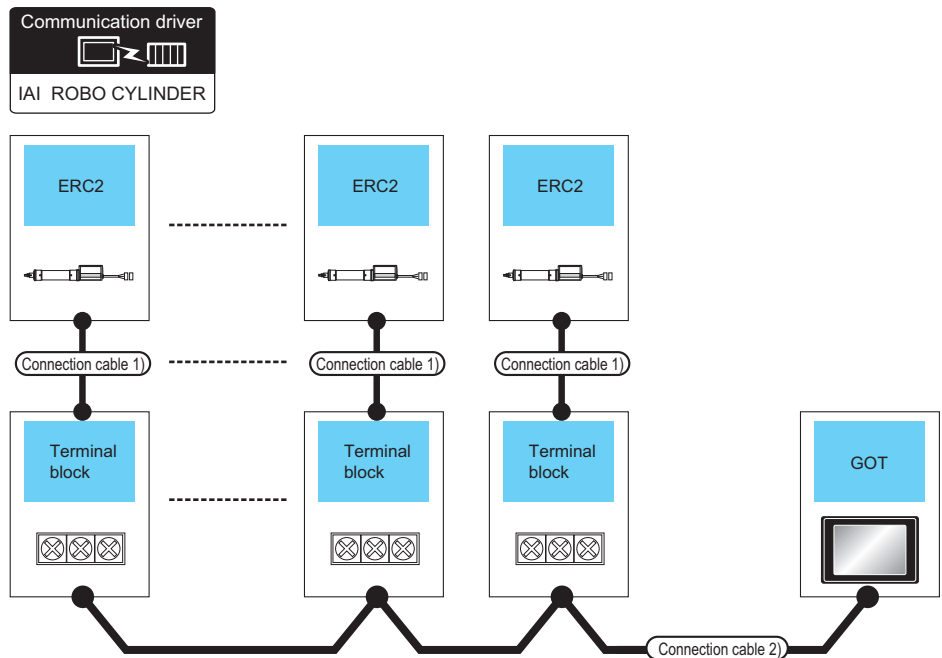


| Controller | Terminal cable | Connecti on cable 1) ^{*1} | Junction box 4D ^{*2} | Connecti on cable 2) | Connecti on cable 3) | GOT | | Max. dista nce | Number of connectable equipment | |
|---|--|------------------------------------|-------------------------------|--|--|--------------------------------------|-------------------------|-------------------------|---------------------------------|--------------------------|
| Series | Connecti on diagram number | Cable model | Model name | Connecti on diagram number | Connecti on diagram number | Option device ^{*6*7} | Model | | | |
| PCON ACON SCON ERC2 (NP/PN specifications) ^{*5} | (User preparing) Page 109 RS-422/485 connection diagram 1) | CB-RCB-CTL002 (0.2m) | 5-1473574-4 | (User preparing) Page 109 RS-422/485 connection diagram 2) | (User preparing) Page 109 RS-422/485 connection diagram 3) | FA-LTBGT2R4CBL05(0.5m) ^{*3} | GT 27 GT 23 | GT 25 GS 25 | 100m | 16 Controllers for 1 GOT |
| | | | | | | FA-LTBGT2R4CBL10(1m) ^{*3} | | | | |
| | | | | | | FA-LTBGT2R4CBL20(2m) ^{*3} | | | | |
| | | | | | | - (Built into GOT) | GT 27 GT 23 GT 21 | GT 25 GS 25 GS 21 | | |
| | | | | | | GT15-RS4-9S | GT 27 GT 25 | | | |
| | | | | | | GT10-C02H-9SC | GT 21 | GT 25 GT 104P | | |
| | | | | (User preparing) Page 110 RS-422/485 connection diagram 5) | | GT15-RS4-TE | GT 27 | GT 25 | | |

| Controller | Terminal cable | Connect on cable 1) ^{*1} | Junction box 4D ^{*2} | Connect on cable 2) | Connect on cable 3) | GOT | | Max. distance | Number of connectable equipment |
|---|--|--|-------------------------------|---|---|---|---|---------------|---------------------------------|
| Series | Connect on diagram number | Cable model | Model name | Connect on diagram number | Connect on diagram number | Option device ^{*6*7} | Model | | |
| PCON ACON SCON ERC2 (NP/PN specifications) ^{*5} | (User preparing) Page 109 RS-422/485 connection diagram 1) | CB-RCB-CTL002 (0.2m) | 5-1473574-4 | (User preparing) Page 109 RS-422/485 connection diagram 2) | (User preparing) Page 113 RS-422/485 connection diagram 14) | - (Built into GOT) |  | 100m | 16 Controllers for 1 GOT |
| | | | | (User preparing) Page 109 RS-422/485 connection diagram 2) | (User preparing) Page 109 RS-422/485 connection diagram 3) | | | | |
| ERC2 (SIO specifications) ^{*4} | (User preparing) Page 109 RS-422/485 connection diagram 1) | CB-ERC2-CTL001 + CB-ERC2-PWBIO □□□ or CB-ERC2-PWBIO □□□ -RB | | (User preparing) Page 109 RS-422/485 connection diagram 2) | (User preparing) Page 110 RS-422/485 connection diagram 4) | - (Built into GOT) |  | | |
| | | | | (User preparing) Page 110 RS-422/485 connection diagram 4) | GT15-RS4-9S |  | | | |
| | | | | (User preparing) Page 110 RS-422/485 connection diagram 4) | GT10-C02H-9SC |  | | | |
| | | | | (User preparing) Page 110 RS-422/485 connection diagram 5) | GT15-RS4-TE |  | | | |
| | | | | (User preparing) Page 113 RS-422/485 connection diagram 14) | - (Built into GOT) |  | | | |

*1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.
*2 Product manufactured by Tyco Electronics. For details of the product, contact Tyco Electronics.
*3 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
*4 Use ERC2-□-□-□-□-SE-□-□.
*5 Use ERC2-□-□-□-□-NP-□-□ or ERC2-□-□-□-□-PN-□-□.
*6 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL.
*7 GT2505-V does not support the option device.
*8 Only available to GS21-W-N for GS21.

■ERC2 (NP/PN specifications) only

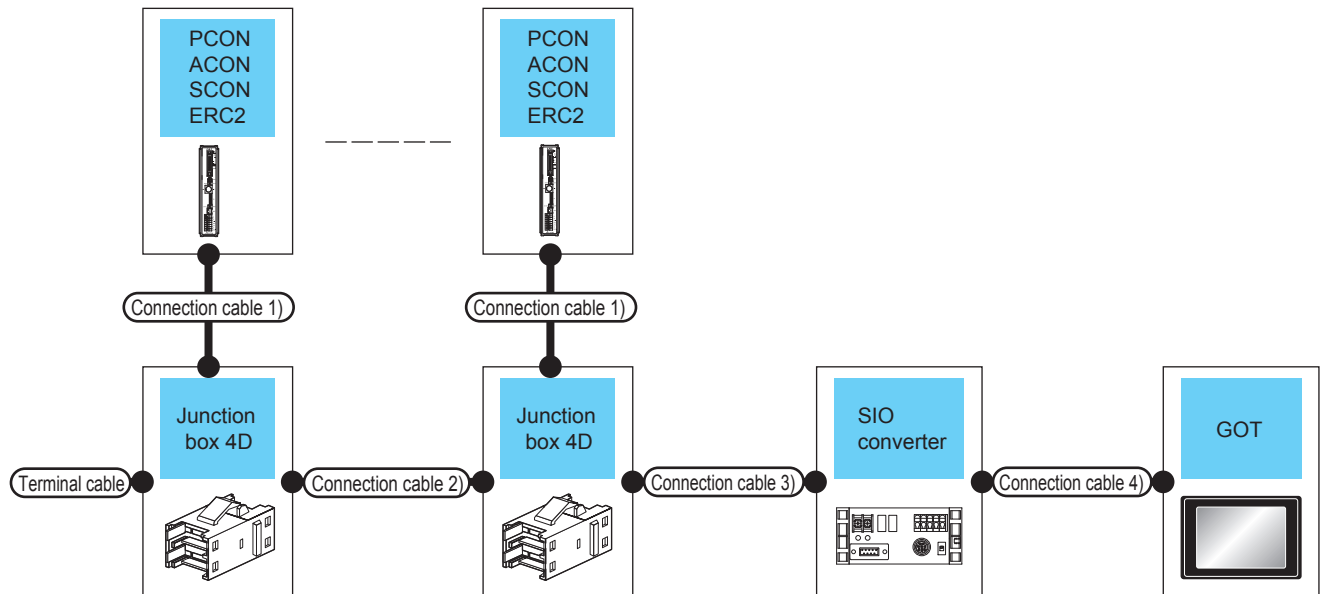


| Controller | Connection cable 1) ^{*1} | Terminal block | Connection cable 2) | GOT | | Max. distance | Number of connectable equipment | | | | | | | | |
|--|--|---|--|--|---|---------------|---------------------------------|-------|-------|------|-----------------------------|-------|-------|-------|--|
| Series | Cable model | | Connection diagram number | Option device ^{*4*5} | Model | | | | | | | | | | |
| ERC2 (NP/PN specifications) ^{*3} | CB-ERC-PWBIO □□□ or CB-ERC-PWBIO □□□-RB | Terminal block (User preparing) | (User preparing) Page 112 RS-422/ 485 connection diagram 10) | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 100m | 16 Controllers for 1 GOT | | | | |
| | | | GT 27 | GT 25 | | | | | | | | | | | |
| | | | GT 23 | GS 25 | | | | | | | | | | | |
| | | | (User preparing) Page 112 RS-422/ 485 connection diagram 11) | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> <tr><td>GS 21</td><td>GS 25</td></tr> <tr><td>GS 21</td><td></td></tr> </table> <p>^{*6}</p> | GT 27 | GT 25 | GT 23 | GS 25 | | | GS 21 | GS 25 | GS 21 | |
| | | | GT 27 | GT 25 | | | | | | | | | | | |
| | | | GT 23 | GS 25 | | | | | | | | | | | |
| GS 21 | GS 25 | | | | | | | | | | | | | | |
| GS 21 | | | | | | | | | | | | | | | |
| | GT15-RS4-9S | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | |
| | GT10-C02H-9SC | <table border="1"> <tr><td>GT 21</td><td>GS 25</td></tr> <tr><td>GS 21</td><td>GS 25</td></tr> </table> | GT 21 | GS 25 | GS 21 | GS 25 | | | | | | | | | |
| GT 21 | GS 25 | | | | | | | | | | | | | | |
| GS 21 | GS 25 | | | | | | | | | | | | | | |
| (User preparing) Page 113 RS-422/ 485 connection diagram 12) | GT15-RS4-TE | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | |
| (User preparing) Page 114 RS-422/ 485 connection diagram 15) | - (Built into GOT) | <table border="1"> <tr><td>GT 21</td><td>GS 25</td></tr> <tr><td>GS 21</td><td>GS 25</td></tr> </table> | GT 21 | GS 25 | GS 21 | GS 25 | | | | | | | | | |
| GT 21 | GS 25 | | | | | | | | | | | | | | |
| GS 21 | GS 25 | | | | | | | | | | | | | | |

















- *1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.
- *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *3 Use ERC2-□-□-□-□-NP-□-□ or ERC2-□-□-□-□-PN-□-□.
- *4 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL□□.
- *5 GT2505-V does not support the option device.
- *6 Only available to GS21-W-N for GS21.









When connecting to multiple controllers (via SIO converter)

■PCON, ACON, SCON, ERC2 (SIO specifications), ERC2 (NP/PN specifications)



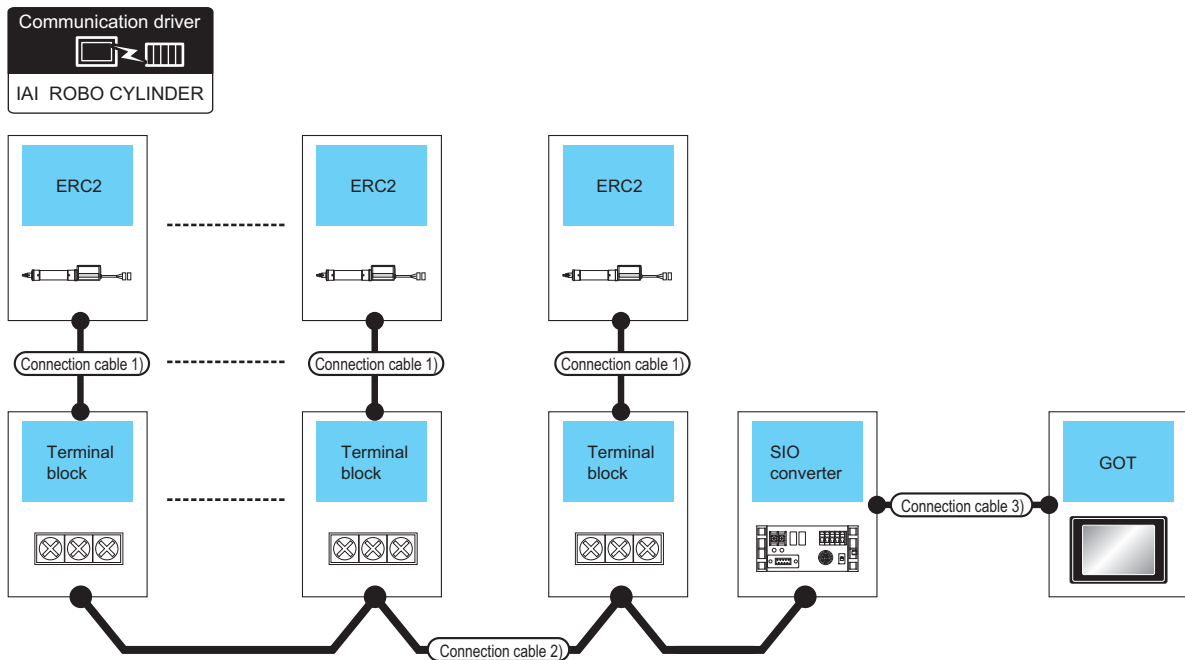
| Controller | Terminal cable | Connection cable 1) ^{*1} | Junction box 4D ^{*2} | Connection cable 2) | Connection cable 3) | Max. distance | SIO converter ^{*1} | | Connection cable 4) | | GOT | | Number of connectable equipment | |
|----------------------|---|-----------------------------------|-------------------------------|---|--|---------------|-----------------------------|--------------------|---|---------------|-------------------------------|-------|---------------------------------|--|
| | | | | | | | Model name | Communication Type | Cable model | Max. distance | Option device ^{*7} | Model | | |
| Series | Connection diagram number | Cable model | Model name | Connection diagram number | Connection diagram number | | | | | | | | | |
| PCON ACON SCON | Page 109 RS-422/485 connection diagram 1) | CB-RCB-CTL002 (0.2m) | 5-147357 4-4 | Page 109 RS-422/485 connection diagram 2) | Page 109 RS-422/485 connection diagram 2) or Page 110 RS-422/485 connection diagram 6) | 100m | RCB-TU-SIO-□ | RS-232 | RCB-CV-MW ^{*1} (0.3m) + CB-RCA-SIO050 ^{*1} (5m) or Page 106 RS-232 connection diagram 3) | 15m | - (Built into GOT) | | 16 Controllers for 1 GOT | |
| | | | | | | | | | | | GT15-RS2-9P | | | |
| | | | | | | | | | | | GT10-C02H-6PT9P ^{*6} | | | |
| | | | | | | | | | Page 108 RS-232 connection diagram 8) | | - (Built into GOT) | | | |

| Controller | Terminal cable | Connection cable 1) ^{*1} | Junction box 4D ^{*2} | Connection cable 2) | Connection cable 3) | Max. distance | SIO converter ^{*1} | | Connection cable 4) | | GOT | | Number of connectable equipment |
|---|--|--|-------------------------------|--|--|---------------|-----------------------------|--------------------|--|---------------|-------------------------------|---|---------------------------------|
| | | | | | | | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*7} | Model | |
| PCON ACON SCON | - | CB-RCB-CTL002 ^{*3} (0.2m) | - | - | - | 100m | RCB-TU-SIO-□ | RS-232 | RCB-CV-MW ^{*1} (0.3m) + CB-RCA-SIO050 ^{*1} (5m) or  Page 106 RS-232 connection diagram 3) | 15m | - (Built into GOT) |  | 2 Controllers for 1 GOT |
| | | | | | | | | | | | GT15-RS2-9P |  | |
| | | | | | | | | | | | GT10-C02H-6PT9P ^{*6} |  | |
| | | | | | | | | |  Page 108 RS-232 connection diagram 8) | | - (Built into GOT) |  | |
| ERC2 (SIO specifications) ^{*4} |  Page 109 RS-422/485 connection diagram 1) | CB-ERC2-CTL001 + CB-ERC2-PWBIO□□□ or CB-ERC2-PWBIO□□□ - RB | 5-1473574-4 |  Page 109 RS-422/485 connection diagram 2) |  Page 109 RS-422/485 connection diagram 2) or  Page 110 RS-422/485 connection diagram 6) | 100m | RCB-TU-SIO-□ | RS-232 | RCB-CV-MW ^{*1} (0.3m) + CB-RCA-SIO050 ^{*1} (5m) or  Page 106 RS-232 connection diagram 3) | 15m | - (Built into GOT) |  | 16 Controllers for 1 GOT |
| | | | | | | | | | | | GT15-RS2-9P |  | |
| | | | | | | | | | | | GT10-C02H-6PT9P ^{*6} |  | |
| | | | | | | | | |  Page 108 RS-232 connection diagram 8) | | - (Built into GOT) |  | |

| Controller | Terminal cable | Connection cable 1) ^{*1} | Junction box 4D ^{*2} | Connection cable 2) | Connection cable 3) | Max. distance | SIO converter ^{*1} | | Connection cable 4) | | GOT | | Number of connectable equipment |
|---|--|---|-------------------------------|--|--|---------------|-----------------------------|--------------------|--|---------------|-------------------------------|---|---------------------------------|
| | | | | | | | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*7} | Model | |
| ERC2 (SIO specifications) ^{*4} | - | CB-ERC2-CTL001 + CB-ERC2-PWBIO□□□ or CB-ERC2-PWBIO□□□ - RB | - | - | - | 100m | RCB-TU-SIO-□ | RS-232 | RCB-CV-MW ¹ (0.3m) + CB-RCA-SIO050 ^{*1} (5m) or (User preparing) Page 106 RS-232 connection diagram 3) | 15m | - (Built into GOT) |  | 2 Controllers for 1 GOT |
| | | | | | | | | | | | GT15-RS2-9P |  | |
| | | | | | | | | | | | GT10-C02H-6PT9P ^{*6} |  | |
| | | | | | | | | | (User preparing) Page 108 RS-232 connection diagram 8) | | - (Built into GOT) |  | |
| ERC2 (NP/PN specifications) ^{*5} | (User preparing) Page 109 RS-422/485 connection diagram 1) | CB-ERC-PWBIO□□□ or CB-ERC-PWBIO□□□-RB + Terminal block (User preparing) + (User preparing) Page 113 RS-422/485 connection diagram 13) | 5-1473574-4 | (User preparing) Page 109 RS-422/485 connection diagram 2) | (User preparing) Page 109 RS-422/485 connection diagram 2) or (User preparing) Page 110 RS-422/485 connection diagram 6) | 100m | RCB-TU-SIO-□ | RS-232 | RCB-CV-MW ¹ (0.3m) + CB-RCA-SIO050 ^{*1} (5m) or (User preparing) Page 106 RS-232 connection diagram 3) | 15m | - (Built into GOT) |  | 16 Controllers for 1 GOT |
| | | | | | | | | | | | GT15-RS2-9P |  | |
| | | | | | | | | | | | GT10-C02H-6PT9P ^{*6} |  | |
| | | | | | | | | | (User preparing) Page 108 RS-232 connection diagram 8) | | - (Built into GOT) |  | |

*1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.
 *2 Product manufactured by Tyco Electronics. For details of the product, contact Tyco Electronics.
 *3 When not using junction box 4D, connection cable 2) or connection cable 3), connect the controller to the SIO converter directly by the cable CR-RCB-CTL002.
 *4 Use ERC2-□-□-□-□-□-SE-□-□.
 *5 Use ERC2-□-□-□-□-□-NP-□-□ or ERC2-□-□-□-□-□-PN-□-□.
 *6 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
 *7 GT25-W, GT2505-V does not support the option device.

■ERC2 (NP/PN specifications) only



| Controller | Connection cable 1) ^{*1} | Terminal block | Connection cable 2) | Max. distance | SIO converter ^{*1} | | Connection cable 3) | | GOT | | Number of connectable equipment |
|---|--|---------------------------------|--|---------------|-----------------------------|--|--|--|---------------------------|--|---------------------------------|
| | Series | | Cable model | | Connection diagram number | Model name | Connection diagram number | Cable model Connection diagram number | Max. distance | Option device ^{*5} | |
| ERC2 (NP/PN specifications) ^{*3} | CB-ERC-PWBIO □□□ or CB-ERC-PWBIO □□□-RB | Terminal block (User preparing) | (User preparing) Page 113 RS-422/485 connection diagram 13) or (User preparing) Page 111 RS-422/485 connection diagram 8) | 100m | RCB-TU-SIO-□ | RS-232 | RCB-CV-MW ^{*1} (0.3m) + CB-RCA-SIO050 ^{*1} (5m) or (User preparing) Page 106 RS-232 connection diagram 3) | 15m | - (Built into GOT) | GT 27 GT 23 GT 21 ^{05A} GS 25 GS 21 | 16 Controllers for 1 GOT |
| | | | | | | | | | GT15-RS2-9P ^{*2} | GT 27 GT 25 | |
| | | GT10-C02H-6PT9P ^{*4} | GT 03P Z104P R4 | | | | | | GT 03P Z104P Rz | | |
| | | RC □-TU-PIO ^{*1} | (User preparing) Page 111 RS-422/485 connection diagram 9) | | | (User preparing) Page 108 RS-232 connection diagram 8) | | | - (Built into GOT) | GT 04R Z1 GT 03P Z104P Rz | |

^{*1} Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.

^{*2} Connect it to the RS-232 interface (built into GOT). It cannot be mounted on GT1655 and GT155□.

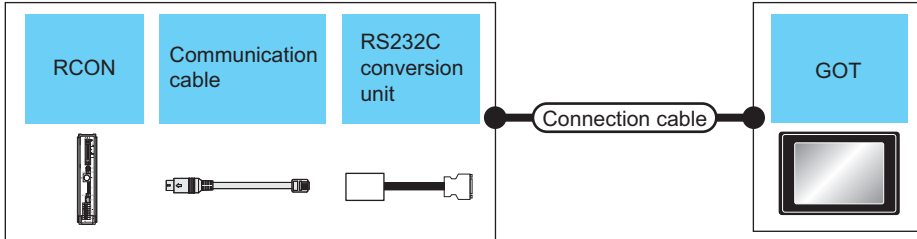
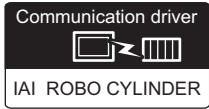
^{*3} Use ERC2-□ or ERC2-□.

^{*4} When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

^{*5} GT25-W, GT2505-V does not support the option device.

System configuration for connecting to RCON

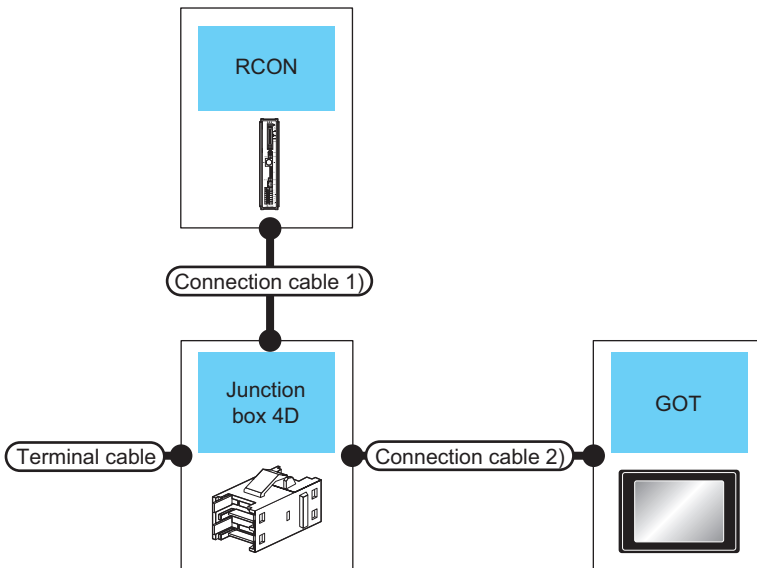
When using the RS-232 connection



| Controller | | | | Connection cable | | GOT | | Number of connectable equipment |
|------------|-----------------------|------------------------|--------------------|---------------------------------------|---------------|--------------------|-------|---------------------------------|
| Series | Communication cable | RS232C conversion unit | Communication Type | Connection diagram number | Max. distance | Option device *3 | Model | |
| RCON | CB-RCA-SIO050 *1 (5m) | RCB-CV-MW *1 (0.3m) | RS-232 | - | - | - (Built into GOT) | | 1 GOT for 1 Controller |
| | | | | Page 108 RS-232 connection diagram 7) | 10m | - (Built into GOT) | | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P *2 | | |

*1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.
 *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
 *3 GT25-W, GT2505-V does not support the option device.

When using the RS-422/485 connection



| Controller | Terminal cable | Connection cable 1) *1 | Junction box 4D *2 | Connection cable 2) | GOT | Max. distance | Number of connectable equipment | |
|------------|---|------------------------|--------------------|--|---|---------------|---------------------------------|--------------------------|
| Series | Connection diagram number | Cable model | Model name | Connection diagram number | Option device *4*5 | Model | | |
| RCON | Page 109 RS-422/485 connection diagram 1) | CB-RCB-CTL002 (0.2m) | 5-1473574-4 | Page 109 RS-422/485 connection diagram 3) | FA-LTBGT2R4CBL05(0.5m) *3 FA-LTBGT2R4CBL10(1m) *3 FA-LTBGT2R4CBL20(2m) *3 | | 100m | 16 Controllers for 1 GOT |
| | | | | Page 110 RS-422/485 connection diagram 4) | - (Built into GOT) | | | |
| | | | | | GT15-RS4-9S | | | |
| | | | | | GT10-C02H-9SC | | | |
| | | | | Page 110 RS-422/485 connection diagram 5) | GT15-RS4-TE | | | |
| | | | | Page 113 RS-422/485 connection diagram 14) | - (Built into GOT) | | | |

- *1 Product manufactured by IAI Corporation. For details of the product, contact IAI Corporation.
- *2 Product manufactured by Tyco Electronics. For details of the product, contact Tyco Electronics.
- *3 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *4 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL□□.
- *5 GT2505-V does not support the option device.
- *6 Only available to GS21-W-N for GS21.

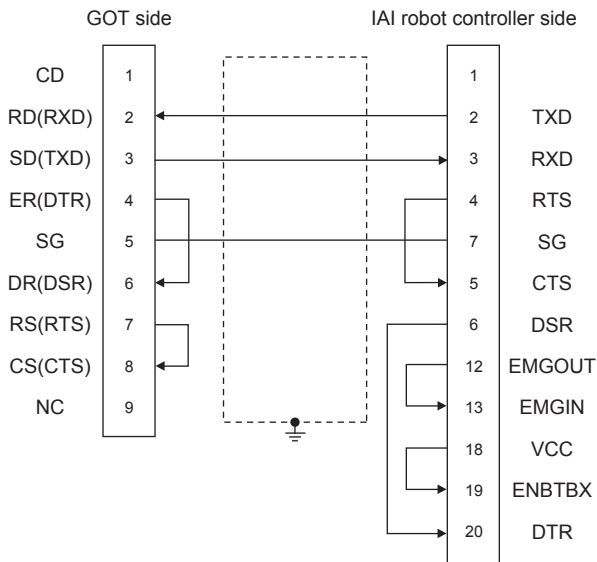
2.3 Connection Diagram

The following diagram shows the connection between the GOT and the controller.

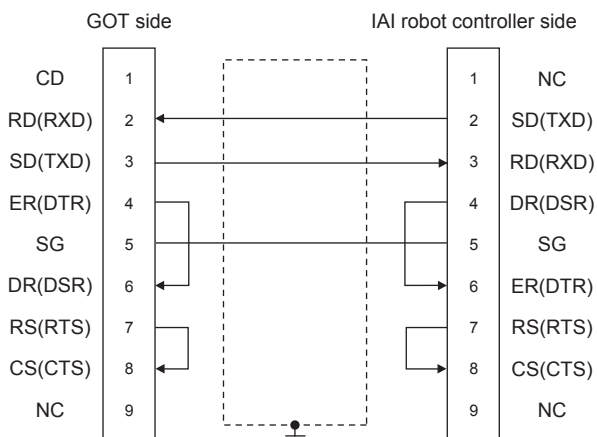
RS-232 cable

Connection diagram

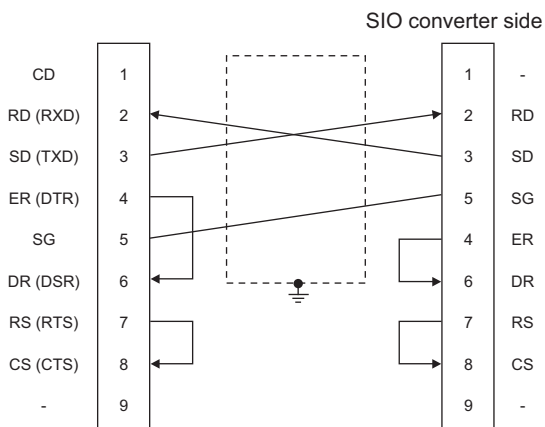
■RS-232 connection diagram 1)



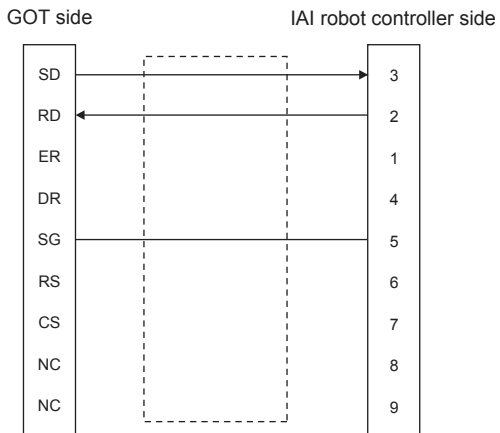
■RS-232 connection diagram 2)



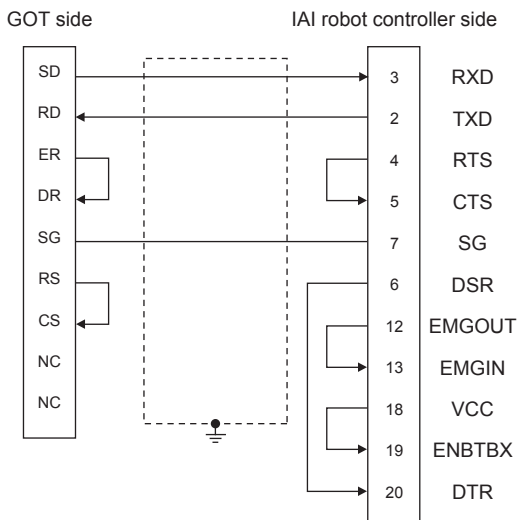
■RS-232 connection diagram 3)



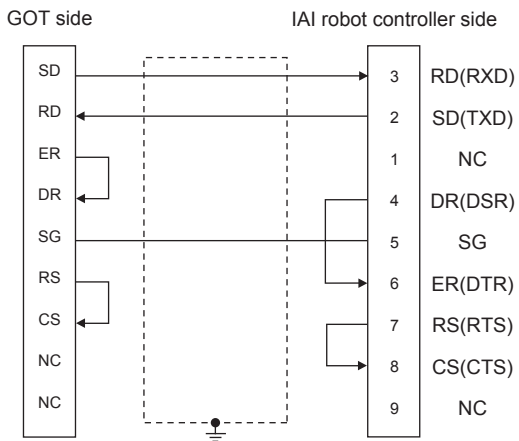
RS-232 connection diagram 4)



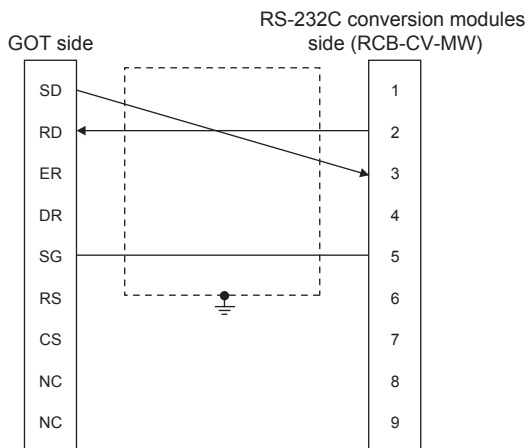
RS-232 connection diagram 5)



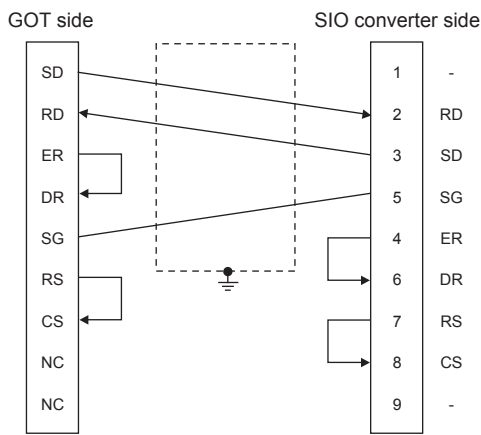
RS-232 connection diagram 6)



■RS-232 connection diagram 7)



■RS-232 connection diagram 8)



Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 10cm or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■IAI Robot Controller side connector

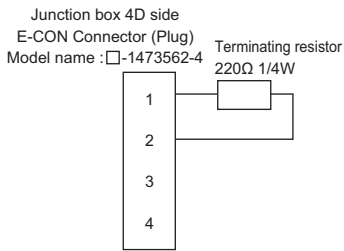
Use the connector compatible with the IAI Robot Controller.

For details, refer to the IAI Robot Controller user's manual.

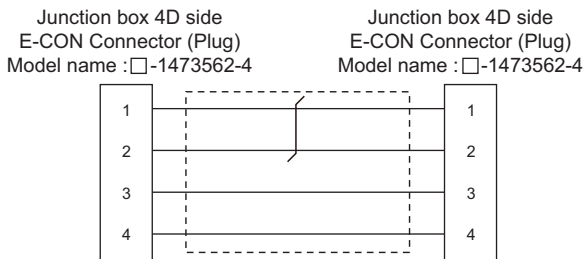
RS-422/485 cable

Connection diagram

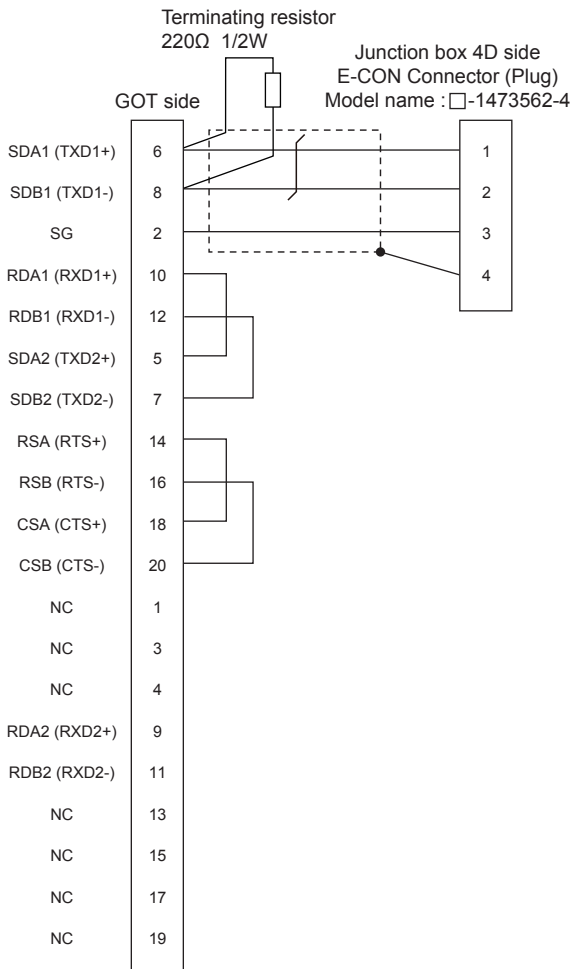
■RS-422/485 connection diagram 1)



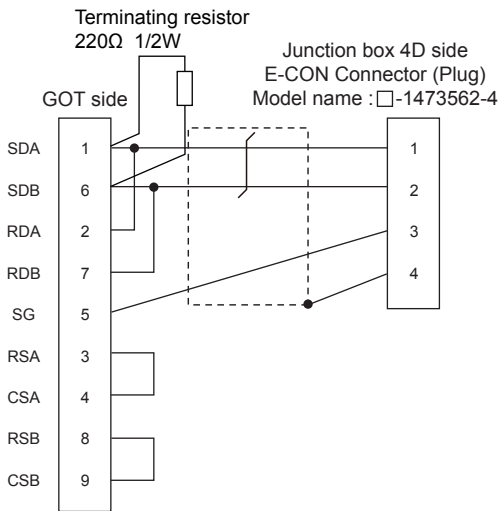
■RS-422/485 connection diagram 2)



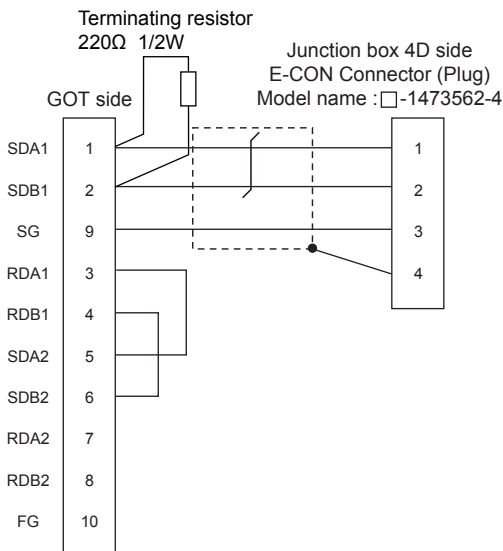
■RS-422/485 connection diagram 3)



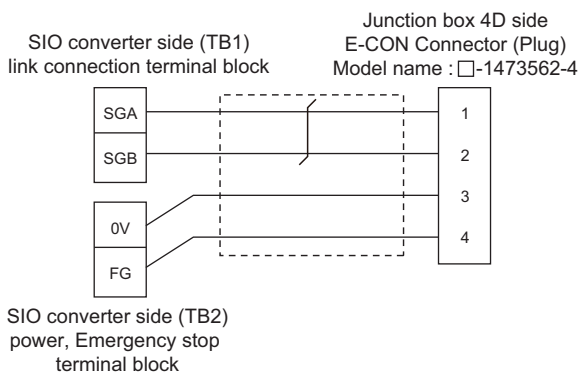
RS-422/485 connection diagram 4)



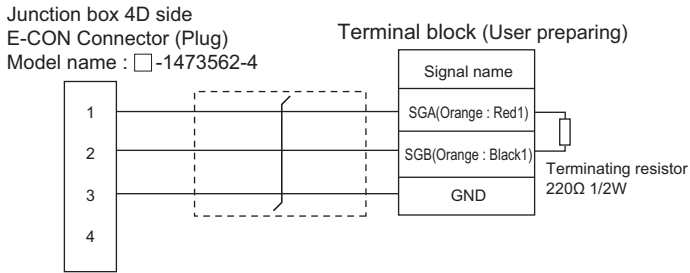
RS-422/485 connection diagram 5)



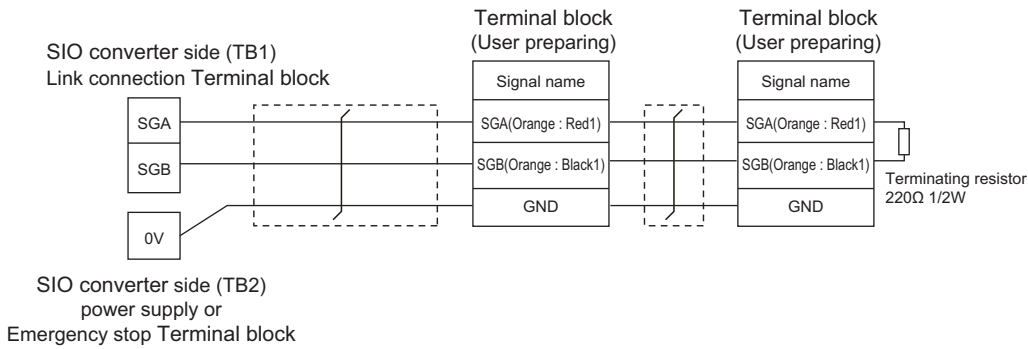
RS-422/485 connection diagram 6)



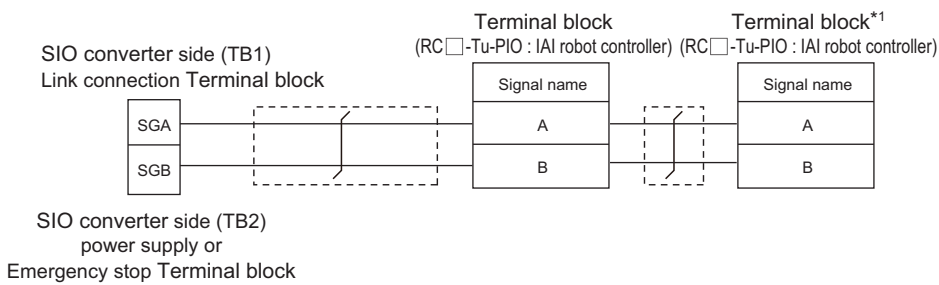
■RS-422/485 connection diagram 7)



■RS-422/485 connection diagram 8)

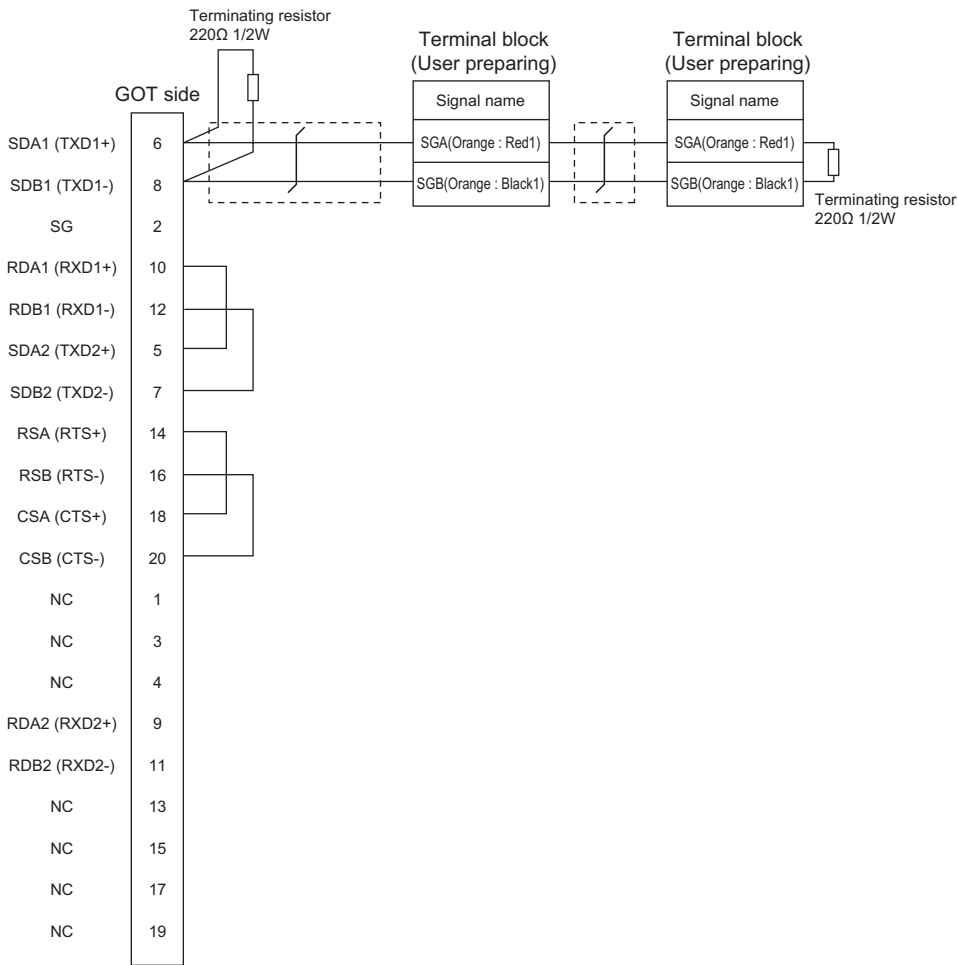


■RS-422/485 connection diagram 9)

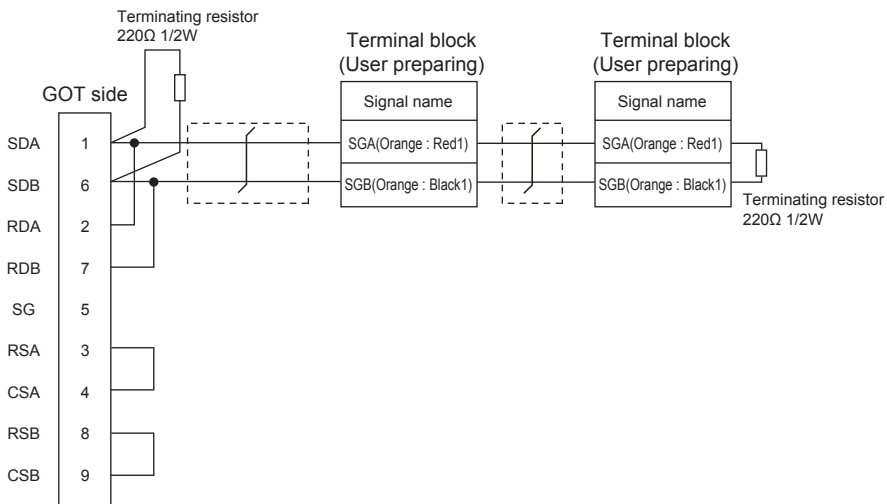


*1 Turn the terminator switch of a terminal block which will be a terminal to "RTON".

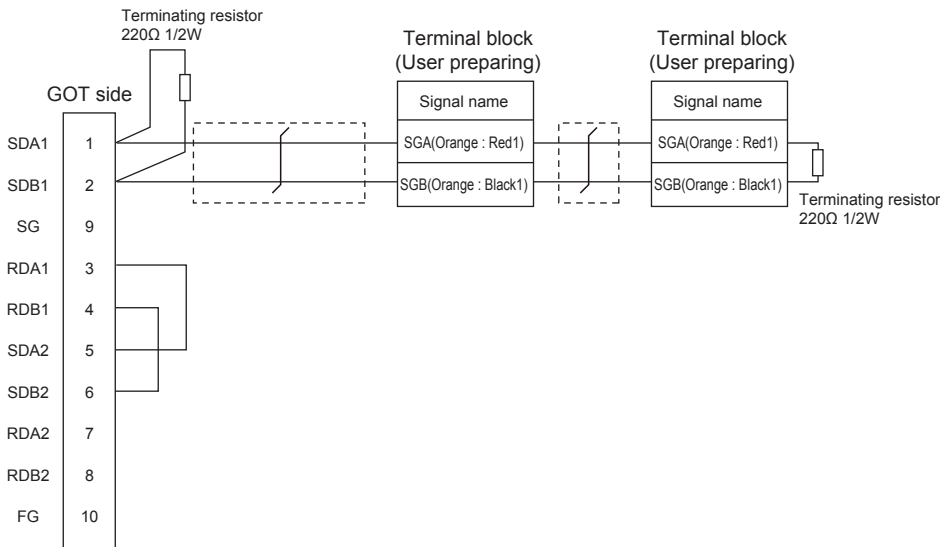
■RS-422/485 connection diagram 10)



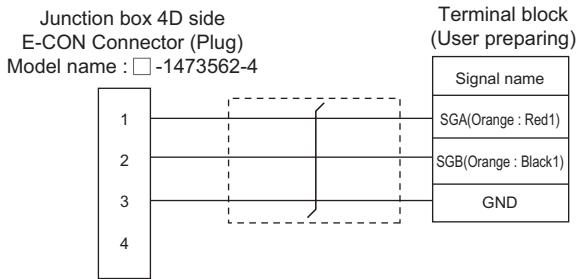
■RS-422/485 connection diagram 11)



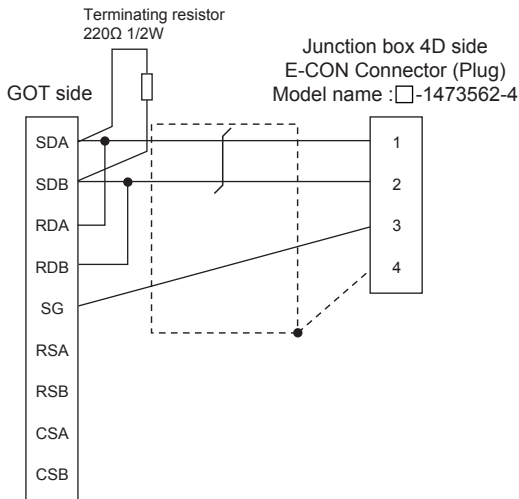
RS-422/485 connection diagram 12)



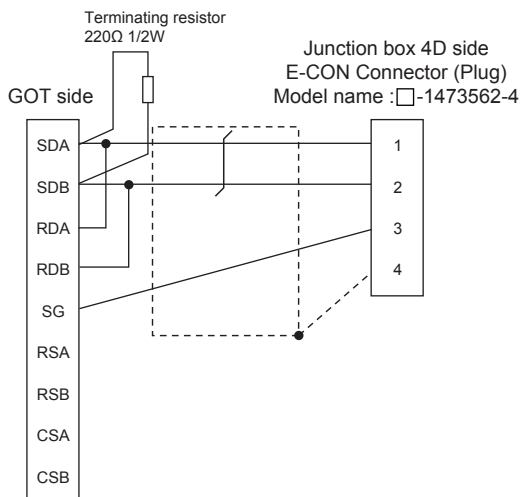
RS-422/485 connection diagram 13)



RS-422/485 connection diagram 14)



■RS-422/485 connection diagram 15)



Precautions when preparing a cable

■Cable length

The maximum length of the RS-422/485 cable must be 100m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■E-CON connector (plug) (Type name: □-1473562-4)

Product manufactured by Tyco Electronics. For details of the product, contact Tyco Electronics.

Connecting terminating resistors

■GOT side

When connecting the GOT and a controller, a terminating resistor must be connected to the GOT.

- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to disable.

- For GT2505-V, GT21, and GS21-W-N

Set the terminating resistor selector to OPEN.

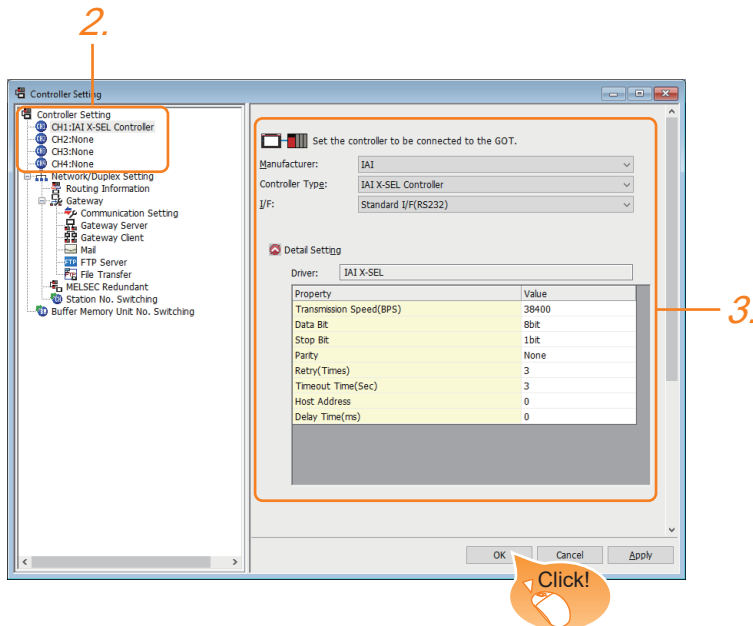
For the procedure to set the terminating resistor, refer to the following.

☞ Page 62 Terminating resistors of GOT

2.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [IAI]
 - [Controller Type]

When connecting to X-SEL, SSEL, ASEL, or PSEL: [IAI X-SEL Controller]

When connecting to PCON, ACON, SCON, RCON, or ERC2: [IAI ROBO CYLINDER]

- [I/F]: Interface to be used
- [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 116 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 38400 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | None |
| Retry(Times) | 3 |
| Timeout Time(Sec) | 3 |
| Host Address | 0 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|--------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 38400bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bit, 8bit |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bits) | 1bit, 2bit |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: None) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 3time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address | Make the settings according to the station number (station code) of the controller to be monitored. (Default: 0) | <When connecting to X-SEL, SSEL, ASEL, PSEL> 0 to 255 <When connecting to PCON, ACON, SCON, RCON, ERC2> 0 to 15 ^{*1} |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300 (ms) |

*1 When connecting to RCON, set the axis number of the driver unit to be monitored.

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

2.5 Robot Controller Side Setting



IAI Robot Controller

For details of IAI Robot Controller, refer to the following manuals.

IAI Robot Controller user's Manual

Connecting to X-SEL

Parameter setting

Enter the following parameters using peripheral software. When setting parameters, set the mode switch of the controller to "MANU".

| Parameter | Parameter Name | Set Value ^{*4} |
|--------------------------------|--|--|
| I/O parameter 90 | Usage of SIO channel 1 ^{*1} opened to user | <ul style="list-style-type: none">• When used in "MANU" Set either of the following. 0: SEL opened program 2: IAI protocol B• When used in "AUTO" 2: IAI protocol B |
| I/O parameter 91 | Station code of SIO channel 1 ^{*1} opened to user | 0 to 255 153* |
| I/O parameter 92 ^{*2} | Baud rate type of SIO channel 1 ^{*1} opened to user | 0: 9600bps* 1: 19200bps 2: 38400bps 3: 57600bps 5: 115200bps |
| I/O parameter 93 | Data length of SIO channel 1 ^{*1} opened to user | 7bit, 8bit* |
| I/O parameter 94 | Stop bit length of SIO channel 1 ^{*1} opened to user | 1bit*, 2bit |
| I/O parameter 95 | Parity type of SIO channel 1 ^{*1} opened to user | 0: None* 1: Odd 2: Even |
| I/O parameter 97 ^{*3} | IAI-protocol minimum response delay for SIO channel 1 ^{*1} opened to user | 0 to 999(ms) |
| Other parameter 46 | Other setting bit pattern 1 | bit0 to 3 = 1 (fixed) |

*1 For X-SEL(P/Q/PX/QX), the parameter becomes the SIO channel 0 opened to user.

*2 Indicates only the transmission that can be specified on the GOT side.
Specify the transmission speed to match the baud rate of the GOT.

*3 Set it only when a wait time is required before the response and transmission to the GOT request. Normally, the communication is available using default values.

*4 When using the "MANU" mode, the set value is fixed to the value with *. Adjust the settings of the GOT side to the * settings.
However, the communication setting of the PC software becomes the setting of X-SEL after the PC software for X-SEL is connected. In this case, adjust the communication setting of the GOT to the setting of the PC software.

Mode switch

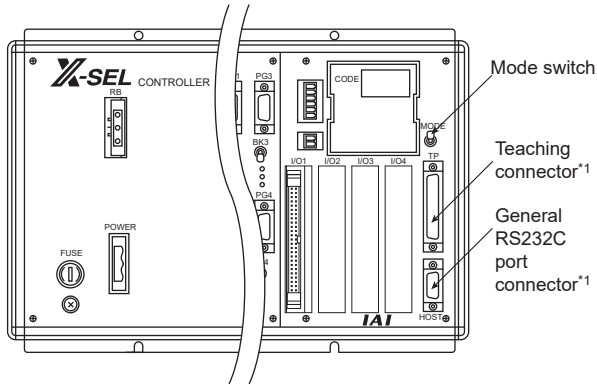
■X-SEL K type

- When setting the mode switch to "MANU"

Connect the GOT to the following teaching connector.

- When setting the mode switch to "AUTO"

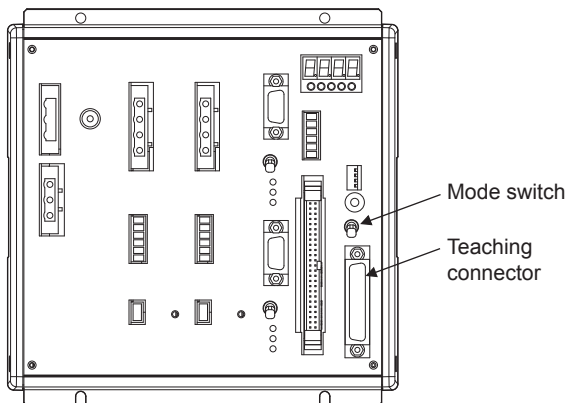
Connect the GOT to the following general RS232C port connector.



*1 The teaching connector and general RS232C port connector cannot be used at the same time.

■Other than X-SEL K type

Set the mode switch to "MANU" or "AUTO" and connect the GOT to the following teaching connector.



Connecting to SSEL, ASEL, PSEL

Parameter setting

Enter the following parameters using peripheral software. When setting parameters, set the mode switch of the controller to "MANU".

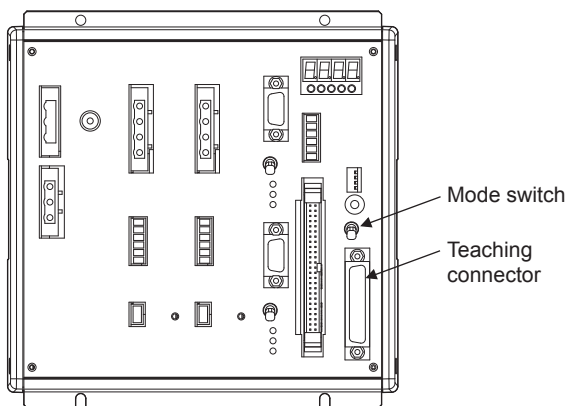
| Parameter | Parameter Name | Set Value |
|--------------------|--|---|
| I/O parameter 90 | Usage of SIO channel 0 opened to user | 2: IAI protocol B (fixed) |
| I/O parameter 91 | Station code of SIO channel 0 opened to user | 0 to 255 |
| I/O parameter 92*1 | Baud rate type of SIO channel 0 opened to user | 0: 9600bps 1: 19200bps 2: 38400bps 3: 57600bps 5: 115200bps |
| I/O parameter 93 | Data length of SIO channel 0 opened to user | 7bit, 8bit |
| I/O parameter 94 | Stop bit length of SIO channel 0 opened to user | 1bit, 2bit |
| I/O parameter 95 | Parity type of SIO channel 0 opened to user | 0: None 1: Odd 2: Even |
| I/O parameter 97*2 | IAI-protocol minimum response delay for SIO channel 0 opened to user | 0 to 999(ms) |
| Other parameter 46 | Other setting bit pattern 1 | bit0 to 3 = 1 (fixed) |

*1 Indicates only the transmission that can be specified on the GOT side.
Specify the transmission speed to match the baud rate of the GOT.

*2 Set it only when a wait time is required before the response and transmission to the GOT request. Normally, the communication is available using default values.

Mode switch

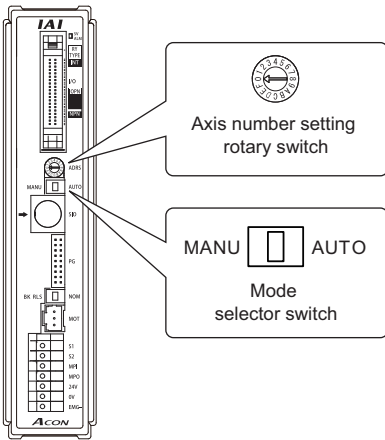
Set the mode switch to "AUTO" and connect the GOT to the following teaching connector.



Connecting to PCON, ACON, SCON

Axis number setting, Mode select

For controllers without the following switches, set from the setting tool (PC software).



| Switch | Setting details |
|-----------------------------------|--|
| Axis number setting rotary switch | 0 to 15 |
| Mode selector switch | <Only the monitor> AUTO <monitor, data change> MANU |

Transmission speed setting

Set the transmission speed from the setting tool (PC software).

| Item | Range |
|--------------------------|---|
| SIO transmission speed*1 | 9600/19200/38400/57600/115200bps Default: 38400bps |

*1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.

Connecting to RCON

Communication setting

The communication setting is fixed.

The following shows each setting value.

| Item | Set value |
|-------------|-----------|
| Baud rate | 115200bps |
| Data length | 8bit |
| Stop bit | 1bit |
| Parity | None |

Axis number setting

Configure the axis number setting using the engineering tool for RCON.

For the setting details, refer to the following.

Manual of the IAI robot controller

Connecting to ERC2

Axis number setting, Mode select

Set from the setting tool (PC software).

Transmission speed setting

Set the transmission speed from the setting tool (PC software).

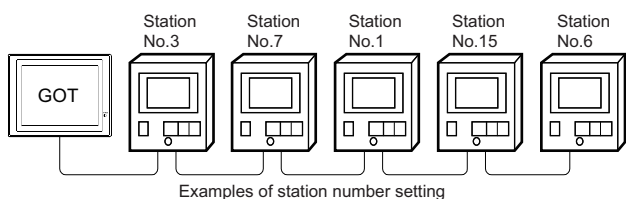
| Item | Range |
|--------------------------|---|
| SIO transmission speed*1 | 9600/19200/38400/57600/115200bps Default: 38400bps |

*1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.

Station No.settings

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.



Direct specification

When setting the device, specify the station number of the controller of which data is to be changed.

| Model name | Specification range | Refer to |
|------------------|---------------------|---|
| PCON, ACON, SCON | 0 to 15 | ☞ Page 120 Connecting to PCON, ACON, SCON |
| ERC2 | 0 to 15 | ☞ Page 121 Connecting to ERC2 |

Indirect specification

When setting the device, indirectly specify the station number of the controller of which data is to be changed using the 16-bit GOT internal data register (GD10 to GD25).

When specifying the station No. from 100 to 115 on GT

Designer3, the value of GD10 to GD25 compatible to the station No. specification will be the station No. of the controller.

| Specification station No. | Compatible device | Setting range |
|---------------------------|-------------------|---|
| 100 | GD10 | 0 to 15 (If setting a value out of the range above, a timeout error occurs.) |
| 101 | GD11 | |
| 102 | GD12 | |
| 103 | GD13 | |
| 104 | GD14 | |
| 105 | GD15 | |
| 106 | GD16 | |
| 107 | GD17 | |
| 108 | GD18 | |
| 109 | GD19 | |
| 110 | GD20 | |
| 111 | GD21 | |
| 112 | GD22 | |
| 113 | GD23 | |
| 114 | GD24 | |
| 115 | GD25 | |

2.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 594 IAI equipment ([IAI X-SEL Controller])

☞ Page 619 IAI equipment ([IAI ROBO CYLINDER])

2.7 Precautions

Program control device

- When Program Execution Command (0), Program Exit Command (2), or Program Restart Command (4) is written to the program control device (PRG 0), it will be a request for all programs running in the controllers.
- When unsupported write data is input to the program control device, the following error is displayed in the system alarm.

315: Device writing error.

Correct device.

Variable devices

The variable number 99 of Integer device and variable number 199 of Real device are special devices used for operations by the X-SEL controller system. Do not use these variables for general purpose.

Command trigger compatible device

- For the device whose obtained data No.0 is a command trigger, communication with the controller is performed when the Write(1)/Read(2) is set to the command trigger.

When the command trigger and setting value are written in a batch, the communication is performed based on the value set with batch write.

- When Clear(4) is set to the command trigger, the communication with the controller is not performed and the set value is initialized.
- When an unsupported set value is input to the command trigger, the following error is displayed in the system alarm.

315: Device writing error.

Correct device.

Device reserved for system use

Devices of "Reserved for system use" are devices with indefinite values. Do not write to these devices.

Write to the flash ROM

- The point data can be written to the flash ROM of the X-SEL controller. When the point data is written to the flash ROM, it is not cleared even when power supply to the controller is turned off. However, there are limits in the number of writing. For details, refer to the user's manual of X-SEL controller used.
- Never turn off the main power supply during the flash ROM write. Doing so may cause the loss of data and malfunction of controllers. For details, refer to the user's manual of X-SEL controller used.

Communication disconnection

- Writing to the flash ROM disconnects the communication with controllers until the writing is completed.
- Resetting software restarts the controllers. During this time, the communication with controllers is disconnected.

Station number setting of the IAI robot controller system

The robot controller with the station number set with the host address must be included.

☞ Page 116 Communication detail settings

Connection of the IAI X-SEL K type

Note the following precaution when using the controller with the mode switch set to MANU.

- After powering up the X-SEL, connecting the GOT before the PC software causes the program startup disabled (A1D alarm) on the X-SEL side.

System area for status (S) devices

■ Access to the system area for status (S) devices

Do not access the system area for status (S) devices.

If access is attempted to an area that contains the system area, the response from the accessed robot controller differs depending on the model of the controller or the accessed area.

For the details, refer to the following.

 IAI Robot Controller user's Manual

■ When monitoring multiple status (S) devices

The GOT requests for data in 16-bit chunks.

If the requested data contains the system area, monitoring may not be performed properly.

To monitor multiple status (S) devices, use multiples of 16 to specify the lowest device number.

Example) Monitoring S01A1 and S01AF simultaneously

- When S01A1 is specified as the start device, an error occurs as the specified 16-bit data contains the system area.

| Status | Area name |
|---------------------------|--|
| S01A1 (monitoring target) | Press program judgement status register (Servo Press) (PPJD) |
| S01A2 | |
| S01A3 | |
| S01A4 | |
| : | |
| S01AE | |
| S01AF (monitoring target) | |
| S01B0 | |

- When S01A0 is specified as the start device, the target devices can be monitored properly as the specified 16-bit data does not contain the system area.









































































| Status | Area name |
|---------------------------|--|
| S01A0 | Press program judgement status register (Servo Press) (PPJD) |
| S01A1 (monitoring target) | |
| S01A2 | |
| S01A3 | |
| : | |
| S01AD | |
| S01AE | |
| S01AF (monitoring target) | |

























































3 AZBIL CONTROL EQUIPMENT

- Page 125 Connectable Model List
- Page 127 System Configuration
- Page 164 Connection Diagram
- Page 188 GOT Side Settings
- Page 191 Control Equipment Side Setting
- Page 203 Settable Device Range
- Page 203 Precautions

3.1 Connectable Model List

The following table shows the connectable models.

| Series | Model name | Clock | Communication Type | Connectable model | Refer to |
|--------|---|-------|--------------------|--|--|
| DMC | DMC10 | × | RS-232 RS-485 |       *1 | ☞ Page 127 Connecting to DMC10 |
| | DMC50 | ○ | RS-485 |       *2 | ☞ Page 129 Connecting to DMC50 |
| SDC | SDC15 SDC25 SDC26 SDC35 SDC36 | × | RS-232 RS-485 |       *1 | ☞ Page 132 Connecting to SDC15, SDC25/ 26 or SDC35/36 |
| | SDC20 SDC21 | × | RS-232 RS-485 |       *2 | ☞ Page 134 Connecting to SDC20/21 |
| | SDC30 SDC31 | × | RS-232 RS-485 |       *2 | ☞ Page 138 Connecting to SDC30/31 |
| | SDC40A SDC40B SDC40G | × | RS-232 RS-485 |       *2 | ☞ Page 140 Connecting to SDC40A/40B/40G |
| | SDC45 SDC46 | ○ | RS-232 RS-485 |       *1 | ☞ Page 144 Connecting to SDC45/46 |
| CMS | CMS | × | RS-232 RS-485 |       *1 | ☞ Page 146 Connecting to CMS, MQV, MPC, MVF, RX |
| CMF | CMF015 CMF050 | × | RS-232 RS-485 |       *2 | ☞ Page 148 Connecting to CMF015, CMF050 |
| CML | CML | × | RS-232 RS-485 |       *2 | ☞ Page 152 Connecting to CML, PBC201- VN2 |
| MQV | MQV | × | RS-232 RS-485 |       *1 | ☞ Page 146 Connecting to CMS, MQV, MPC, MVF, RX |
| MPC | MPC | × | RS-232 RS-485 |       *1 | ☞ Page 146 Connecting to CMS, MQV, MPC, MVF, RX |

| Series | Model name | Clock | Communication Type | Connectable model | Refer to |
|---------|---|-------|------------------------------|--|---|
| MVF | MVF | × | RS-232 RS-485 |       *1 |  Page 146 Connecting to CMS, MQV, MPC, MVF, RX |
| PBZ | PBC201-VN2 | × | RS-232 RS-485 |       *2 |  Page 152 Connecting to CML, PBC201-VN2 |
| AUR | AUR350C AUR450C | × | RS-232 RS-485 |       *1 |  Page 155 Connecting to AUR350C, AUR450C |
| RX | RX | ○ | RS-232 RS-485 |       *1 |  Page 146 Connecting to CMS, MQV, MPC, MVF, RX |
| CMC | CMC10B | × | RS-232 RS-485 |       *2 |  Page 157 Connecting to CMC10B |
| AHC2001 | AHC2001 | ○ | RS-232 RS-485 |       *2 |  Page 159 Connecting to AHC2001 |
| NX | NX-D15 NX-D25 NX-D35 NX-DX1 NX-DX2 NX-DY NX-S01 NX-S11 NX-S12 NX-S21 | × | RS-232 RS-485 (MODBUS) |       *1 |  Page 163 Connecting to NX series |
| | NX-D15 NX-D25 NX-D35 NX-DX1 NX-DX2 NX-DY NX-S01 NX-S11 NX-S12 NX-S21 | × | Ethernet (MODBUS) |       *1 |  Page 163 Connecting to NX series |

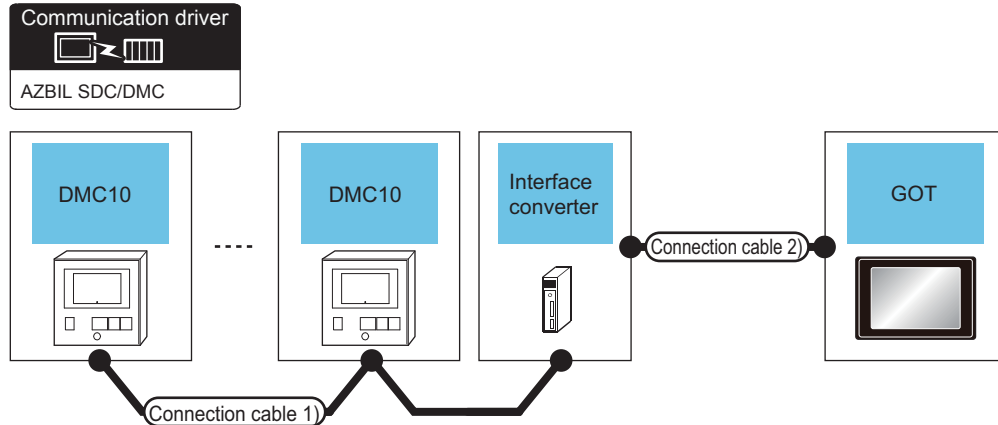
*1 For GS21, only GS21-W-N supports the RS-485 connection.

*2 For the RS-485 connection of GS21-W, use the RS-422 interface.

3.2 System Configuration

Connecting to DMC10

When using the Interface converter

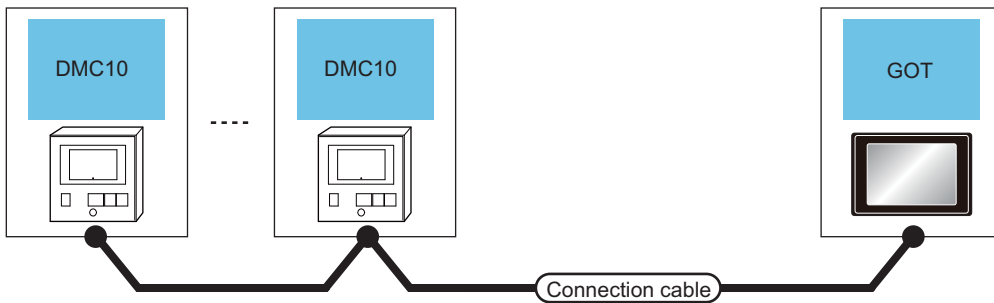
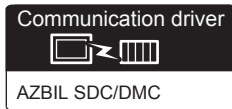


| Temperature controller | Connection cable 1) | | Interface converter*1 | | Connection cable 2) | | GOT | | Number of connectable equipment |
|------------------------|--|--|-----------------------|------------|--|--|--------------------|-----------------|--|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device*2 | |
| DMC10 | (User preparing) Page 166 RS485 connection diagram 1) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | | Up to 15 temperature controllers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |
| | | | | | | | - (Built into GOT) | | |
| | (User preparing) Page 165 RS232 connection diagram 3) | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|------------------------|--------------------|--|--------------------|---|--------------|--|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| DMC10 | RS-485 | Page 174 RS485 connection diagram 12) | 500m | - (Built into GOT) | | Up to 15 temperature controllers for 1 GOT | |
| | | Page 167 RS485 connection diagram 3) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | | *4 |
| | | Page 169 RS485 connection diagram 5) | 500m | GT15-RS4-TE | | | *3*4 |
| | | Page 183 RS485 connection diagram 27) | 500m | GT14-RS2T4-9P ^{*5} | | | *6 |
| | | Page 180 RS485 connection diagram 21) | 500m | - (Built into GOT) | | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

*4 Not available to GT2505-V.

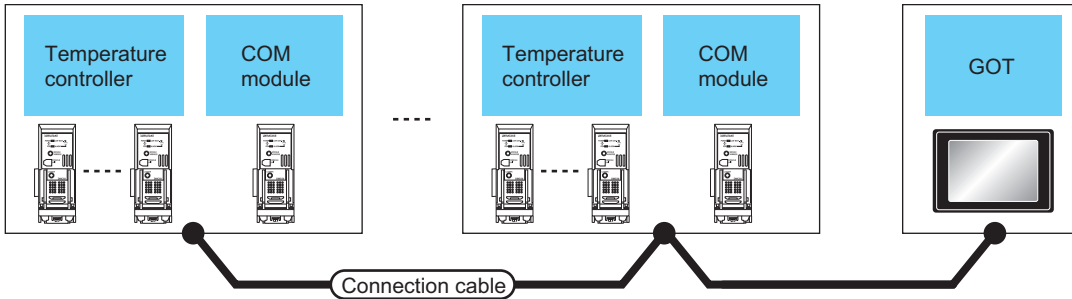
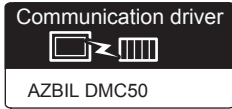
*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.

*7 Only available to GS21-W-N for GS21.

Connecting to DMC50

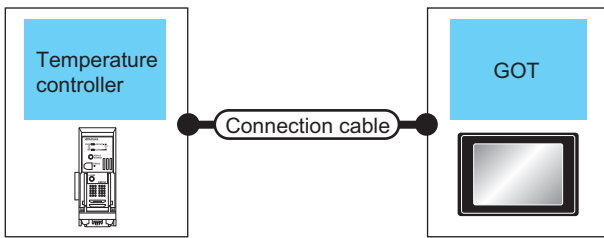
When using the COM module



| Temperature controller | Connection cable | | COM module ^{*1} | | GOT | | Number of connectable equipment |
|---|---|---------------------------|--------------------------|--------------------|---|---------------|--|
| | Model name | Connection diagram number | Max. distance | Model name | Communication Type | Option device | |
| DMC50CX | (User presetting) Page 172 RS485 connection diagram 8) | 500m ^{*2} | DMC50M20X | RS-485 | FA-LTBGT2R4CBL05 (0.5m) ^{*3} FA-LTBGT2R4CBL10 (1m) ^{*3} FA-LTBGT2R4CBL20 (2m) ^{*2} | *5 | Up to 8 COM module for 1 GOT. Up to 120 temperature controllers for 1 COM module. |
| | | | | | | | |
| | GT15-RS4-9S | *4*5 | | | | | |
| | GT15-RS4-TE | *4*5 | | | | | |
| | (User presetting) Page 184 RS485 connection diagram 28) | 500m | DMC50M□20X | RS-485 | GT14-RS2T4-9P ^{*6} | *7 | |
| (User presetting) Page 180 RS485 connection diagram 22) | 500m | DMC50M□20X | RS-485 | - (Built into GOT) | | | |

- *1 Including the cable length of the option devices.
- *2 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.
- *3 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *4 Not available to GT25-W.
- *5 Not available to GT2505-V.
- *6 Mount it on the RS-232 interface (GOT built-in).
- *7 Only available to GT2505-V.
- *8 For GS21-W, use the RS-422 interface for connection.

When connecting directly to one temperature controller

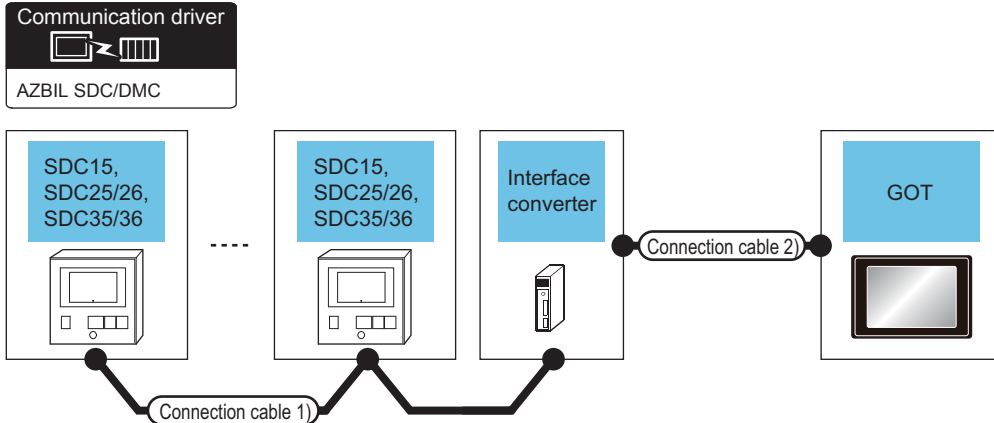















| Temperature controller | Connection cable | | | GOT | | Number of connectable equipment |
|------------------------|---------------------------------------|---------------------------|---------------|---|---------------|--|
| | Model name | Connection diagram number | Max. distance | Communication Type | Option device | |
| DMC50CX | Page 173 RS485 connection diagram 10) | 500m ^{*1} | RS-485 | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 1 temperature controller for 1 GOT |
| | Page 174 RS485 connection diagram 13) | 500m | RS-485 | - (Built into GOT) | | |
| | Page 173 RS485 connection diagram 11) | 500m | RS-485 | GT15-RS4-TE | | |
| | Page 184 RS485 connection diagram 29) | 500m | RS-485 | GT14-RS2T4-9P ^{*5} | | |
| | Page 180 RS485 connection diagram 23) | 500m | RS-485 | - (Built into GOT) | | |
| | | | | | | |

*1 Including the cable length of the option devices.
 *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
 *3 Not available to GT25-W.
 *4 Not available to GT2505-V.
 *5 Mount it on the RS-232 interface (GOT built-in).
 *6 Only available to GT2505-V.
 *7 Only available to GS21-W-N for GS21.

Connecting to SDC15, SDC25/26 or SDC35/36

When using the Interface converter

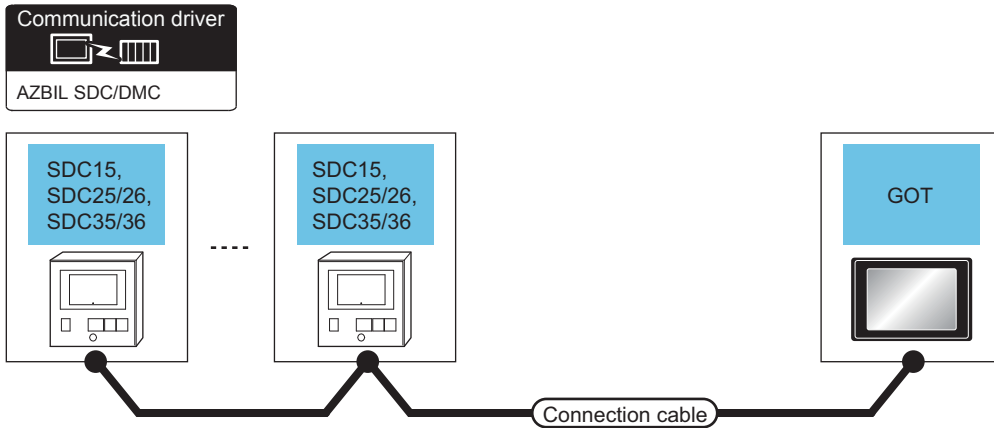


| Temperature controller | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment |
|-------------------------------|---|--|-----------------------------------|------------|---|--|--------------------|---|--|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | |
| SDC15 SDC25/26 SDC35/36 | (User preparing) Page 166 RS485 connection diagram 1) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) |        | Up to 31 temperature controllers for 1 GOT |
| | | | | | | | | GT15-RS2-9P | |
| | | | | RS-232 | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) |       | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly



3

| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|-------------------------------|--------------------|---|--------------------|---|------------------|--|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| SDC15 SDC25/26 SDC35/36 | RS-485 | Page 167 RS485 connection diagram 3) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 31 temperature controllers for 1 GOT |
| | | Page 174 RS485 connection diagram 12) | 500m | - (Built into GOT) | | |
| | | Page 169 RS485 connection diagram 5) | 500m | GT15-RS4-TE | | |
| | | Page 183 RS485 connection diagram 27) | 500m | GT14-RS2T4-9P ^{*5} | | |
| | | Page 180 RS485 connection diagram 21) | 500m | - (Built into GOT) | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

*4 Not available to GT2505-V.

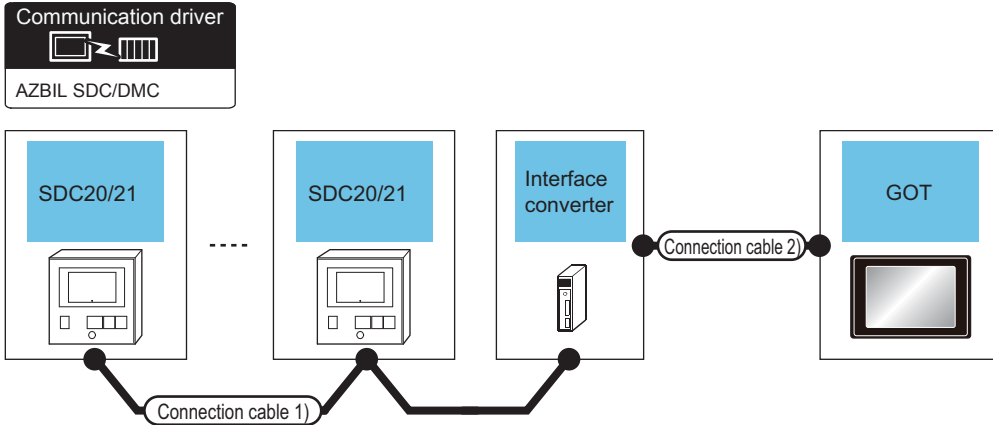
*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.

*7 Only available to GS21-W-N for GS21.

Connecting to SDC20/21

When using the Interface converter

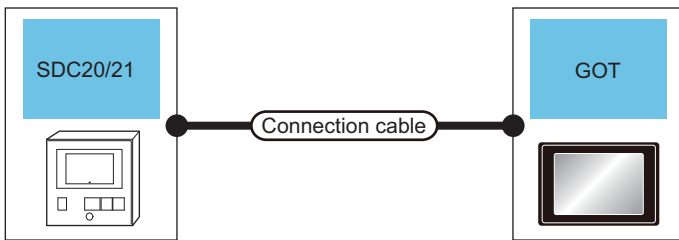
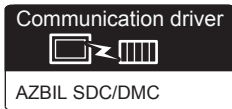


| Temperature controller | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment | |
|------------------------|---|--|-----------------------------------|------------|---|--|-----------------------|-----------------------------|--|---|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | | Model |
| SDC20/21 | (User preparing) Page 166 RS485 connection diagram 2) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 | GT 25 | Up to 31 temperature controllers for 1 GOT |
| | | | | | | | | GT 23 | GT 21 | |
| | | | | | GS 21 | GT 27 | GT 25 | | | |
| | | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | GT ^{04R} 21 | GT ^{03R} 21 GT ^{04P} R2 | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

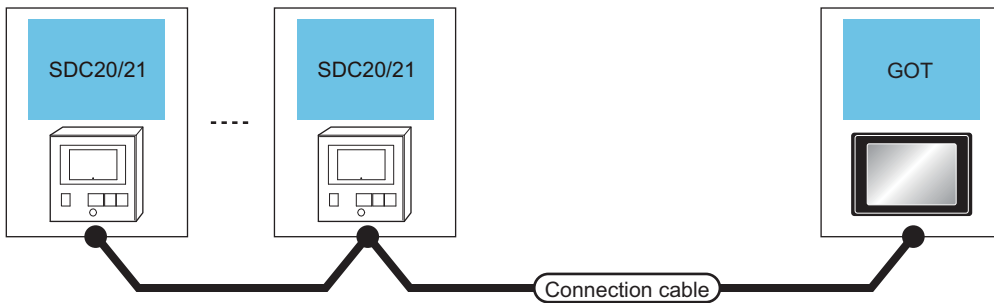
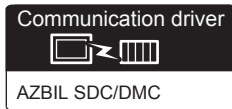
When connecting directly to one temperature controller



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|------------------------|--------------------|--|---------------|--------------------|-------|--|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *1 | Model | |
| SDC20/21 | RS-232 | Page 164 RS232 connection diagram 2) | 15m | - (Built into GOT) | | Up to 1 temperature controller for 1 GOT |
| | | | | GT15-RS2-9P | | |
| | | Page 165 RS232 connection diagram 4) | 15m | - (Built into GOT) | | |

*1 GT25-W, GT2505-V does not support the option device.

When connecting directly to multiple temperature controllers

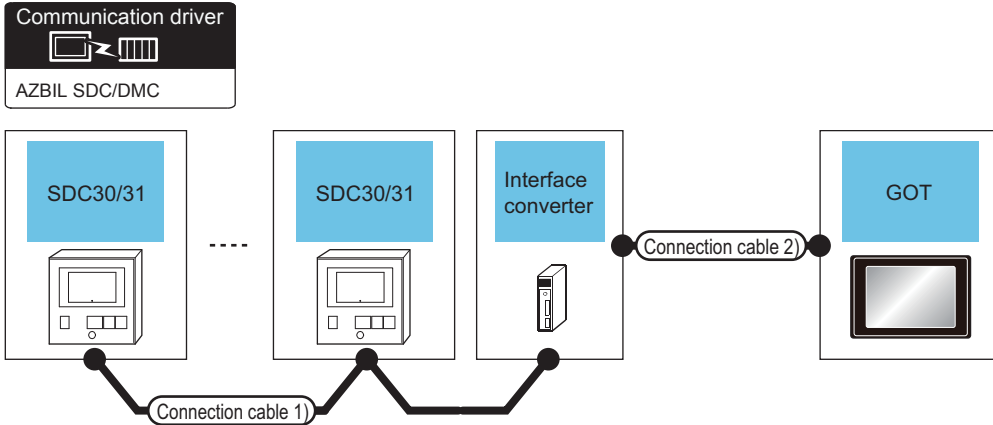


| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|---|--------------------|---|--------------------|---|----------|--|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| SDC20/21 | RS-485 | Page 168 RS485 connection diagram 4)(4-wire) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 31 temperature controllers for 1 GOT | |
| | | Page 175 RS485 connection diagram 14)(2-wire) | | | | | *4 |
| | | Page 170 RS485 connection diagram 6)(4-wire) | 500m | - | | | *7 |
| | | | | | | | |
| | | Page 176 RS485 connection diagram 15)(2-wire) | 500m | - (Built into GOT) | | | *8 |
| | | Page 171 RS485 connection diagram 7)(4-wire) | 500m | GT15-RS4-TE | | | *3*4 |
| | | Page 177 RS485 connection diagram 16)(2-wire) | | | | | |
| | | Page 185 RS485 connection diagram 30)(4-wire) | 500m | GT14-RS2T4-9P ^{*5} | | | *6 |
| Page 186 RS485 connection diagram 31)(2-wire) | | | | | | | |
| Page 181 RS485 connection diagram 24)(4-wire) | 500m | - | | | | | |
| Page 182 RS485 connection diagram 25)(2-wire) | | | | | | | |

- *1 Including the cable length of the option devices.
- *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *3 Not available to GT25-W.
- *4 Not available to GT2505-V.
- *5 Mount it on the RS-232 interface (GOT built-in).
- *6 Only available to GT2505-V.
- *7 For GS21-W, use the RS-422 interface for connection.
- *8 Only available to GS21-W-N for GS21.

Connecting to SDC30/31

When using the Interface converter

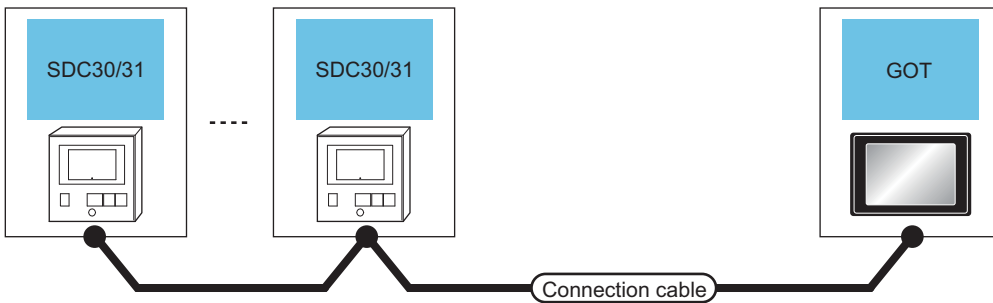


| Temperature controller | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment | | | | | | | | |
|------------------------|---|--|-----------------------------------|------------|---|--|--|--|---------------------------------|-------|-------|-------|-------|-------|-------|--|--|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | | Model | | | | | | | |
| SDC30/31 | (User preparing) Page 166 RS485 connection diagram 2) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> <tr> <td>GT 23</td> <td>GT 21</td> </tr> <tr> <td>GT 21</td> <td>GS 25</td> </tr> <tr> <td>GS 21</td> <td></td> </tr> </table> | GT 27 | GT 25 | GT 23 | GT 21 | GT 21 | GS 25 | GS 21 | | Up to 31 temperature controllers for 1 GOT |
| GT 27 | GT 25 | | | | | | | | | | | | | | | | |
| GT 23 | GT 21 | | | | | | | | | | | | | | | | |
| GT 21 | GS 25 | | | | | | | | | | | | | | | | |
| GS 21 | | | | | | | | | | | | | | | | | |
| | | | | | | GT15-RS2-9P | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | | | |
| | | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | <table border="1"> <tr> <td>GT 21</td> <td>GT 25</td> </tr> <tr> <td>GT 21</td> <td>GS 25</td> </tr> </table> | GT 21 | GT 25 | GT 21 | GS 25 | | | | | |
| GT 21 | GT 25 | | | | | | | | | | | | | | | | |
| GT 21 | GS 25 | | | | | | | | | | | | | | | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|---|--------------------|---|--------------------|---|----------|--|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| SDC30/31 | RS-485 | Page 168 RS485 connection diagram 4)(4-wire) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 31 temperature controllers for 1 GOT | |
| | | Page 175 RS485 connection diagram 14)(2-wire) | | | | | *4 |
| | | Page 170 RS485 connection diagram 6)(4-wire) | 500m | - (Built into GOT) | | | *7 |
| | | | | | | | |
| | | Page 171 RS485 connection diagram 7)(4-wire) | 500m | GT15-RS4-TE | | | *3*4 |
| | | Page 177 RS485 connection diagram 16)(2-wire) | | | | | |
| | | Page 185 RS485 connection diagram 30)(4-wire) | 500m | GT14-RS2T4-9P ^{*5} | | | *6 |
| | | Page 186 RS485 connection diagram 31)(2-wire) | | | | | |
| Page 181 RS485 connection diagram 24)(4-wire) | 500m | - (Built into GOT) | | | | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

*4 Not available to GT2505-V.

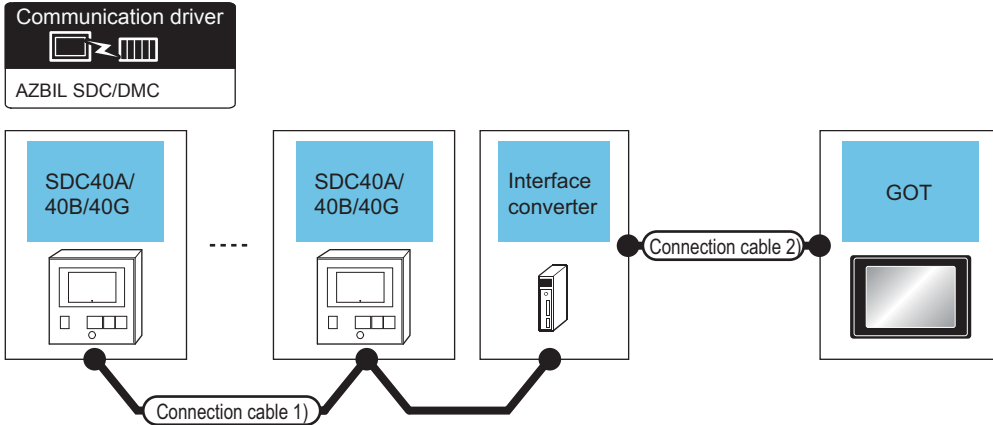
*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.

*7 For GS21-W, use the RS-422 interface for connection.

Connecting to SDC40A/40B/40G

When using the Interface converter

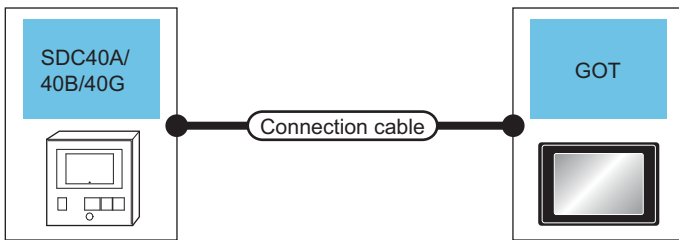
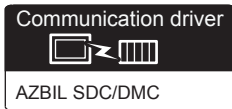


| Temperature controller | Connection cable 1) | | Interface converter*1 | | Connection cable 2) | | GOT | | Number of connectable equipment |
|------------------------|---|--|-----------------------|----------------------------------|---|---------------|--------------------|-------|--|
| | Model name | Cable model Connection diagram number | Max. distance | Model name Communication Type | Cable model Connection diagram number | Max. distance | Option device*2 | Model | |
| SDC40A/40B/40G | (User preparing) Page 166 RS485 connection diagram 2) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | | Up to 31 temperature controllers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |
| | | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

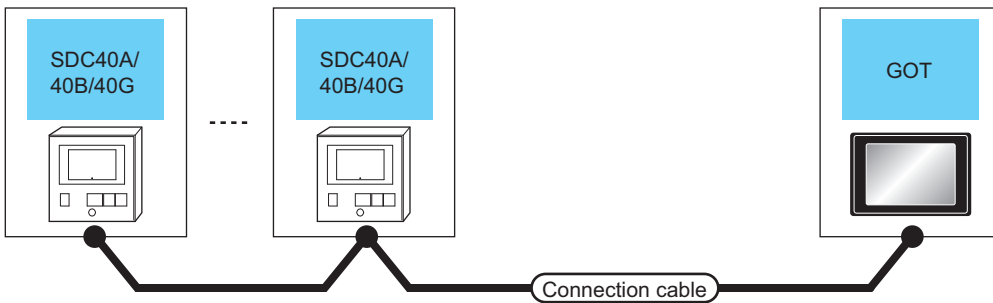
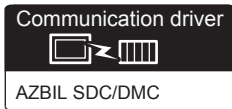
When connecting directly to one temperature controller














| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|------------------------|--------------------|--|---------------|--------------------|----------|--|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *1 | Model | |
| SDC40A/40B/40G | RS-232 | Page 164 RS232 connection diagram 2) | 15m | - (Built into GOT) | | Up to 1 temperature controller for 1 GOT |
| | | | | GT15-RS2-9P | | |
| | | Page 165 RS232 connection diagram 4) | 15m | - (Built into GOT) | | |

*1 GT25-W, GT2505-V does not support the option device.

When connecting directly to multiple temperature controllers

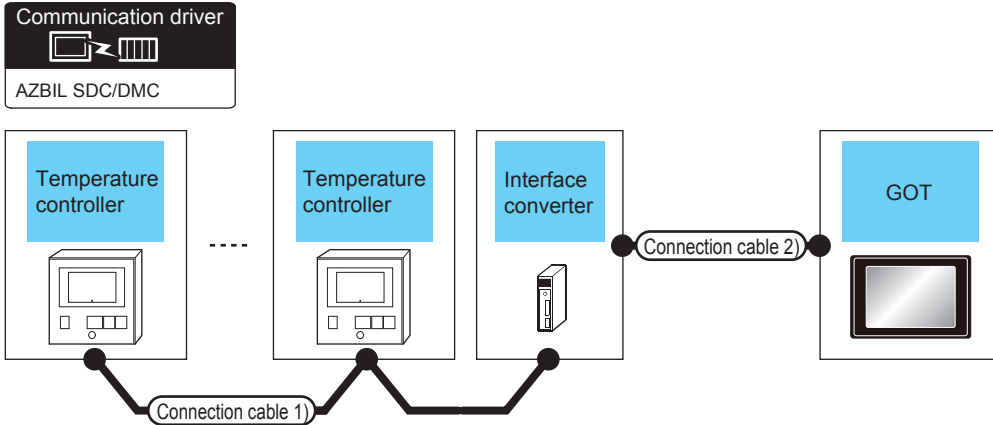


| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|---|--------------------|---|--------------------|---|--|--|----|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| SDC40A/40B/40G | RS-485 | (User pressing) Page 168 RS485 connection diagram 4)(4-wire) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} |   | Up to 31 temperature controllers for 1 GOT | |
| | | (User pressing) Page 175 RS485 connection diagram 14)(2-wire) | | | | | *4 |
| | | (User pressing) Page 170 RS485 connection diagram 6)(4-wire) | 500m | - (Built into GOT) |     | | *7 |
| | | GT15-RS4-9S | | | | | |
| | | (User pressing) Page 176 RS485 connection diagram 15)(2-wire) | 500m | - (Built into GOT) |     | | *8 |
| | | (User pressing) Page 171 RS485 connection diagram 7)(4-wire) | | | | | |
| | | (User pressing) Page 177 RS485 connection diagram 16)(2-wire) | 500m | GT14-RS2T4-9P ^{*5} |  | | *6 |
| | | (User pressing) Page 185 RS485 connection diagram 30)(4-wire) | | | | | |
| | | (User pressing) Page 186 RS485 connection diagram 31)(2-wire) | 500m | | | | |
| | | (User pressing) Page 181 RS485 connection diagram 24)(4-wire) | | | | | |
| (User pressing) Page 182 RS485 connection diagram 25)(2-wire) | | | | | | | |

- *1 Including the cable length of the option devices.
- *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *3 Not available to GT25-W.
- *4 Not available to GT2505-V.
- *5 Mount it on the RS-232 interface (GOT built-in).
- *6 Only available to GT2505-V.
- *7 For GS21-W, use the RS-422 interface for connection.
- *8 Only available to GS21-W-N for GS21.

Connecting to SDC45/46

When using the Interface converter

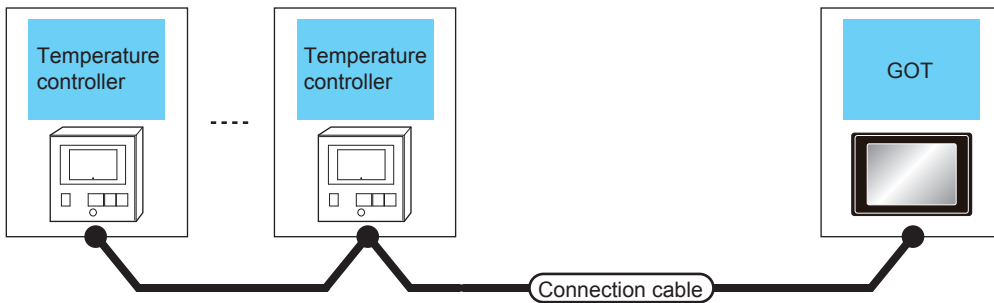
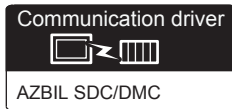


| Temperature controller | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment |
|------------------------|--|--|-----------------------------------|------------|---|--|--------------------|-----------------------------|--|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | |
| SDC45/46 | (User preparing) Page 178 RS485 connection diagram 17) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | | Up to 31 temperature controllers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |
| | | | | | | | - (Built into GOT) | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly to multiple temperature controllers

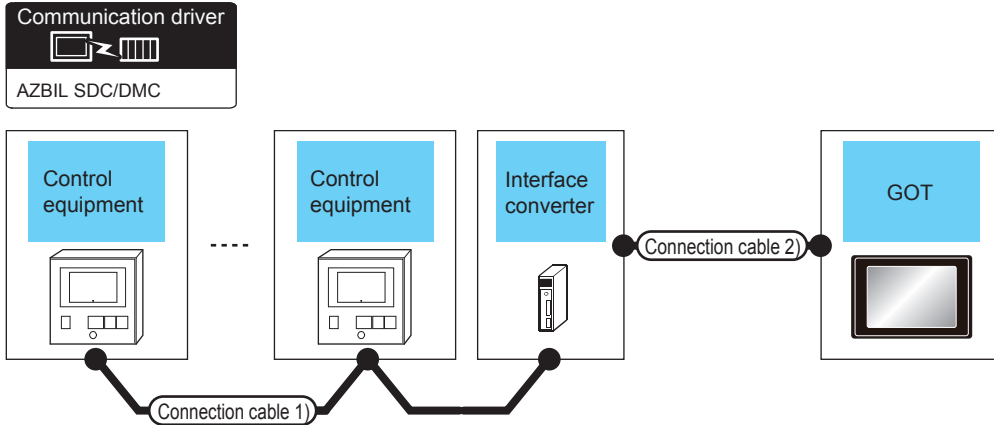


| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|------------------------|--------------------|--|--------------------|---|--------------|---|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| SDC45/46 | RS-485 | Page 178 RS485 connection diagram 18) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 31 temperature controller for 1 GOT |
| | | Page 179 RS485 connection diagram 19) | 500m | GT15-RS4-TE | | |
| | | Page 179 RS485 connection diagram 20) | 500m | - (Built into GOT) | | |
| | | Page 187 RS485 connection diagram 32) | 500m | GT14-RS2T4-9P ^{*5} | | |
| | | Page 183 RS485 connection diagram 26) | 500m | - (Built into GOT) | | |

*1 Including the cable length of the option devices.
 *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
 *3 Not available to GT25-W.
 *4 Not available to GT2505-V.
 *5 Mount it on the RS-232 interface (GOT built-in).
 *6 Only available to GT2505-V.
 *7 Only available to GS21-W-N for GS21.

Connecting to CMS, MQV, MPC, MVF, RX

When using the Interface converter

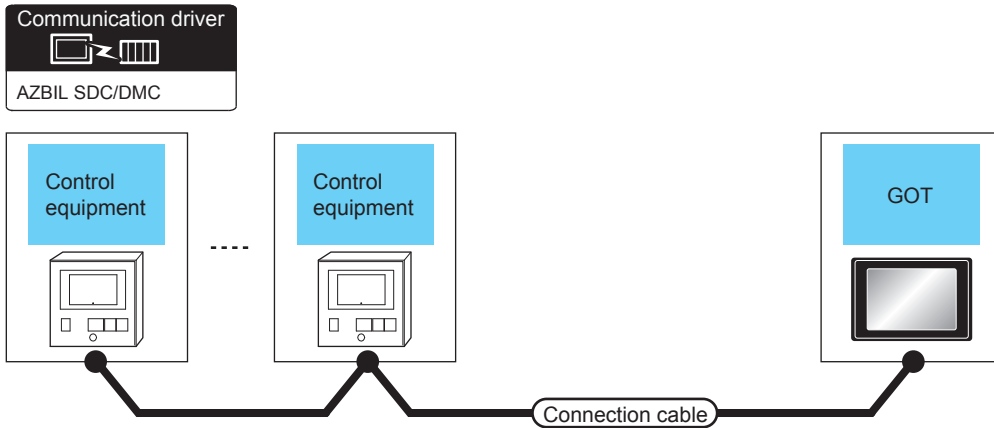


| Control equipment | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment |
|--------------------------------|--|--|-----------------------------------|------------|---|--|--------------------|-----------------------------|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | |
| CMS MQV MPC MVF RX | (User preparing) Page 178 RS485 connection diagram 17) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | | Up to 31 control equipment for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |
| | | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly to multiple control equipments



| Control equipment | | Connection cable | | GOT | | Number of connectable equipment | |
|--------------------------------|--------------------|--|--------------------|---|-------|-------------------------------------|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| CMS MQV MPC MVF RX | RS-485 | (User preparing) Page 178 RS485 connection diagram 18) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 1 control equipment for 1 GOT | |
| | | | | | *4 | | |
| | | (User preparing) Page 179 RS485 connection diagram 19) | 500m | GT15-RS4-TE | | | *3*4 |
| | | (User preparing) Page 179 RS485 connection diagram 20) | 500m | -(Built into GOT) | | | *7 |
| | | (User preparing) Page 187 RS485 connection diagram 32) | 500m | GT14-RS2T4-9P ^{*5} | | | *6 |
| | | (User preparing) Page 183 RS485 connection diagram 26) | 500m | -(Built into GOT) | | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

*4 Not available to GT2505-V.

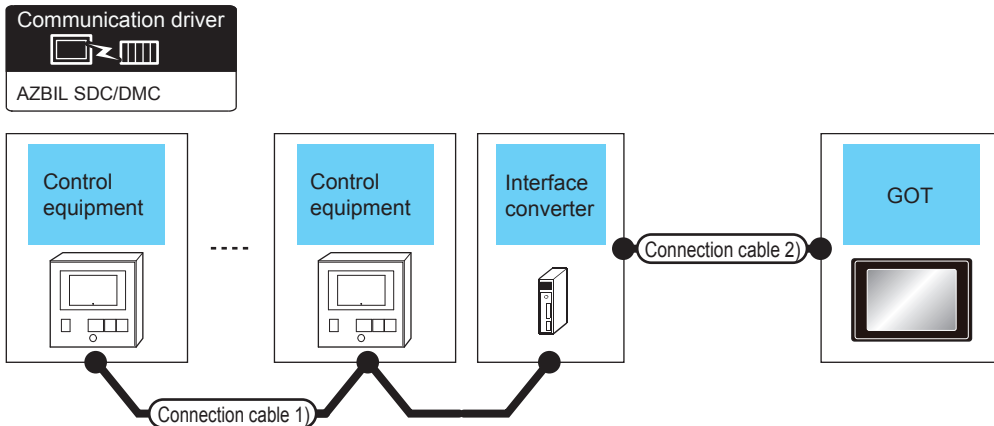
*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.

*7 Only available to GS21-W-N for GS21.

Connecting to CMF015, CMF050

When using the Interface converter



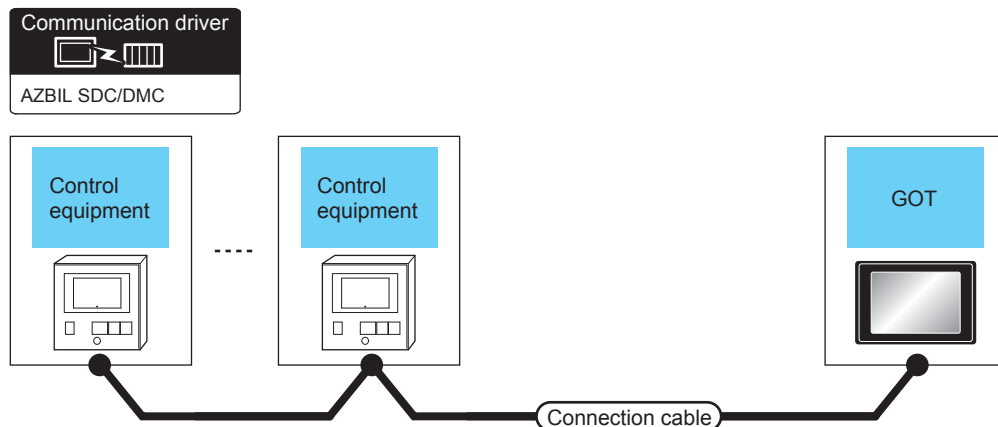
| Control equipment | Connection cable 1) | | Interface converter *1 | | Connection cable 2) | | GOT | | Number of connectable equipment |
|-------------------|--|--|------------------------|------------|---|--|--------------------|------------------|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *2 | |
| CMF015 | (User preparing) Page 178 RS485 connection diagram 17) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | | Up to 31 control equipment for 1 GOT |
| | | | | | | | | GT15-RS2-9P | |
| | | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | | |
| CMF050 | (User preparing) Page 166 RS485 connection diagram 2) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | | Up to 31 control equipment for 1 GOT |
| | | | | | | | | GT15-RS2-9P | |
| | | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly

■Connecting to CMF015



| Control equipment | | Connection cable | | GOT | | Number of connectable equipment | |
|-------------------|--------------------|--|--------------------|---|----------|-------------------------------------|----|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| CMF015 | RS-485 | Page 178 RS485 connection diagram 18) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 1 control equipment for 1 GOT | |
| | | Page 179 RS485 connection diagram 19) | 500m | GT15-RS4-TE | | | *4 |
| | | Page 179 RS485 connection diagram 20) | 500m | - (Built into GOT) | | | *7 |
| | | Page 187 RS485 connection diagram 32) | 500m | GT14-RS2T4-9P ^{*5} | | | *6 |
| | | Page 183 RS485 connection diagram 26) | 500m | - (Built into GOT) | | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

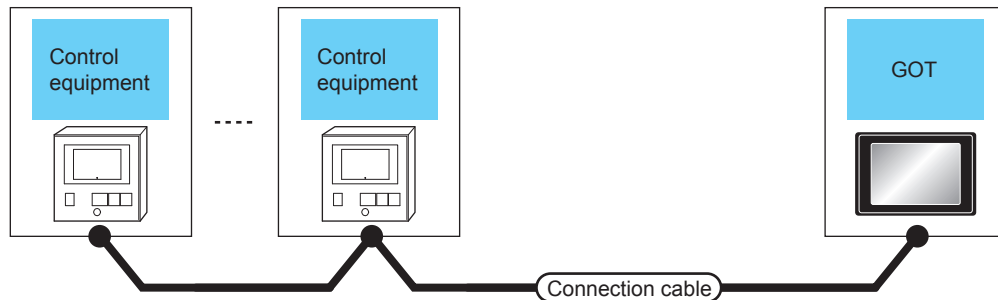
*4 Not available to GT2505-V.

*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.

*7 Only available to GS21-W-N for GS21.

■Connecting to CMF050

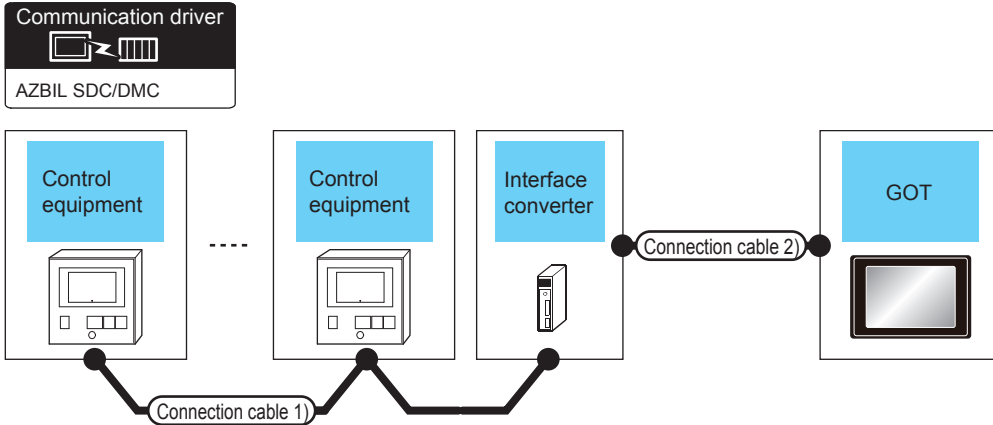


| Control equipment | | Connection cable | | GOT | | Number of connectable equipment | |
|---|--------------------|---|--------------------|---|-------|-------------------------------------|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| CMF050 | RS-485 | Page 168 RS485 connection diagram 4)(4-wire) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 1 control equipment for 1 GOT | |
| | | Page 175 RS485 connection diagram 14)(2-wire) | | | | | *4 |
| | | Page 170 RS485 connection diagram 6)(4-wire) | 500m | - (Built into GOT) | | | *7 |
| | | GT15-RS4-9S | | | | | |
| | | Page 176 RS485 connection diagram 15)(2-wire) | 500m | - (Built into GOT) | | | *8 |
| | | Page 171 RS485 connection diagram 7)(4-wire) | 500m | GT15-RS4-TE | | | *3*4 |
| | | Page 177 RS485 connection diagram 16)(2-wire) | | | | | |
| | | Page 185 RS485 connection diagram 30)(4-wire) | 500m | GT14-RS2T4-9P ^{*5} | | | *6 |
| | | Page 186 RS485 connection diagram 31)(2-wire) | | | | | |
| | | Page 181 RS485 connection diagram 24)(4-wire) | 500m | - (Built into GOT) | | | |
| Page 182 RS485 connection diagram 25)(2-wire) | | | | | | | |

- *1 Including the cable length of the option devices.
- *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *3 Not available to GT25-W.
- *4 Not available to GT2505-V.
- *5 Mount it on the RS-232 interface (GOT built-in).
- *6 Only available to GT2505-V.
- *7 For GS21-W, use the RS-422 interface for connection.
- *8 Only available to GS21-W-N for GS21.

Connecting to CML, PBC201-VN2

When using the Interface converter

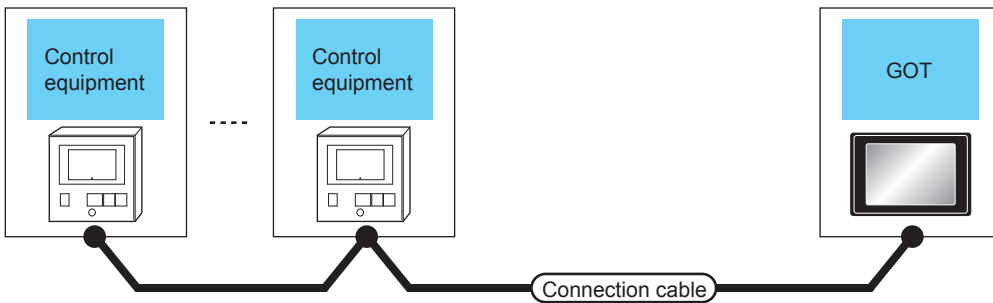
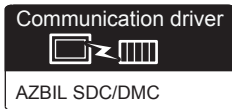


| Control equipment | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment | | | | | | | | |
|--|---|--|--|----------------------|--|--|--------------------|--|---------------------------------|-------|-------|----------------------|----------------------|-------|-------|--|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | | Model | | | | | | | |
| CML PBC201-VN2 | (User's manual) Page 166 RS485 connection diagram 2) | 500m | CMC10L | RS-232 | (User's manual) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>ST 21^{07W}</td></tr> <tr><td>ST 24^{05S}</td><td>GS 25</td></tr> <tr><td>GS 21</td><td></td></tr> </table> | GT 27 | GT 25 | GT 23 | ST 21 ^{07W} | ST 24 ^{05S} | GS 25 | GS 21 | | Up to 31 control equipment for 1 GOT |
| | | | | | | | | GT 27 | GT 25 | | | | | | | | |
| | | | | | GT 23 | ST 21 ^{07W} | | | | | | | | | | | |
| ST 24 ^{05S} | GS 25 | | | | | | | | | | | | | | | | |
| GS 21 | | | | | | | | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | | | |
| (User's manual) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | <table border="1"> <tr><td>ST 21^{04R}</td><td>ST 21^{03P}</td></tr> <tr><td>ST 21^{04P}</td><td>R2</td></tr> </table> | ST 21 ^{04R} | ST 21 ^{03P} | ST 21 ^{04P} | R2 | | | | | | | | | | |
| ST 21 ^{04R} | ST 21 ^{03P} | | | | | | | | | | | | | | | | |
| ST 21 ^{04P} | R2 | | | | | | | | | | | | | | | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly

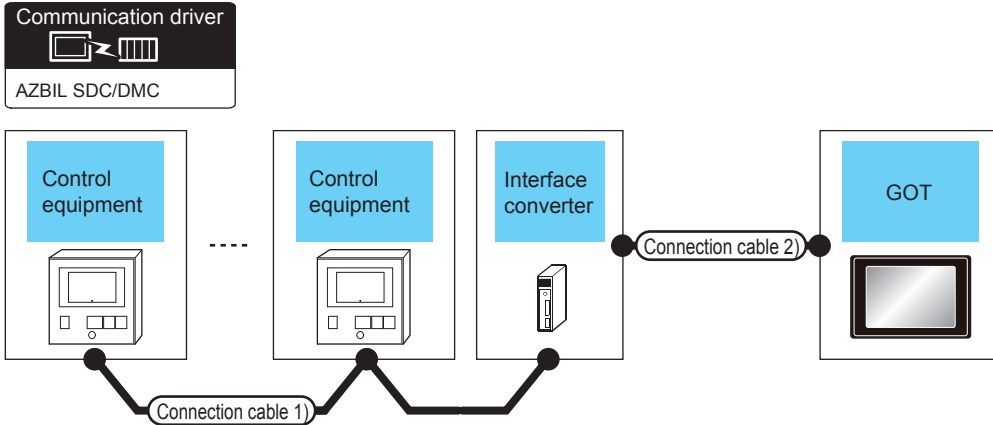


| Control equipment | | Connection cable | | GOT | | Number of connectable equipment | |
|---|--------------------|---|--------------------|---|----------|-------------------------------------|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| CML PBC201-VN2 | RS-485 | Page 168 RS485 connection diagram 4)(4-wire) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 1 control equipment for 1 GOT | |
| | | Page 175 RS485 connection diagram 14)(2-wire) | | | | | *4 |
| | | Page 170 RS485 connection diagram 6)(4-wire) | 500m | - (Built into GOT) | | | *7 |
| | | | | | | | |
| | | Page 176 RS485 connection diagram 15)(2-wire) | 500m | - (Built into GOT) | | | *8 |
| | | Page 171 RS485 connection diagram 7)(4-wire) | 500m | GT15-RS4-TE | | | *3*4 |
| | | Page 177 RS485 connection diagram 16)(2-wire) | | | | | |
| | | Page 185 RS485 connection diagram 30)(4-wire) | 500m | GT14-RS2T4-9P ^{*5} | | | *6 |
| | | Page 186 RS485 connection diagram 31)(2-wire) | | | | | |
| | | Page 181 RS485 connection diagram 24)(4-wire) | 500m | - (Built into GOT) | | | |
| Page 182 RS485 connection diagram 25)(2-wire) | | | | | | | |

- *1 Including the cable length of the option devices.
- *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *3 Not available to GT25-W.
- *4 Not available to GT2505-V.
- *5 Mount it on the RS-232 interface (GOT built-in).
- *6 Only available to GT2505-V.
- *7 For GS21-W, use the RS-422 interface for connection.
- *8 Only available to GS21-W-N for GS21.

Connecting to AUR350C, AUR450C

When using the Interface converter

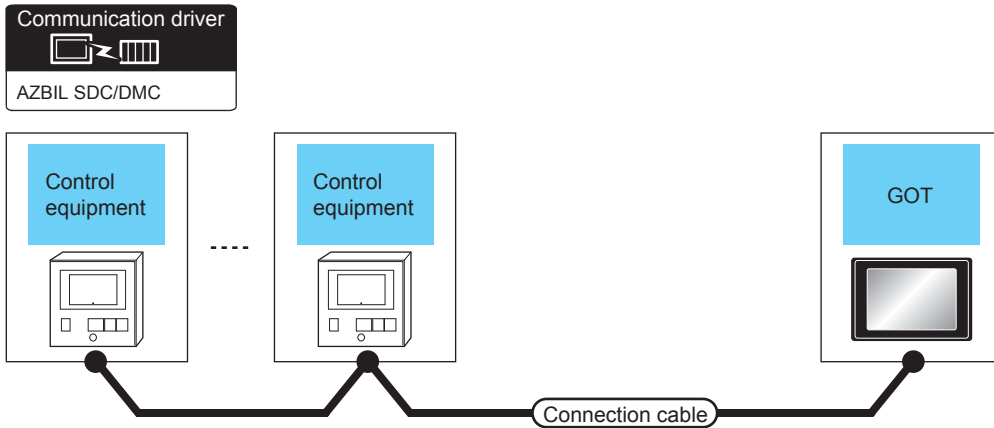


| Control equipment | Connection cable 1) | | Interface converter*1 | | Connection cable 2) | | GOT | | Number of connectable equipment | | | | | | | | |
|--------------------|---|--|-----------------------|----------------------------------|--|---------------|---|--|---------------------------------|-------|-------|-------|-------|-------|-------|--|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name Communication Type | Cable model Connection diagram number | Max. distance | Option device*2 | Model | | | | | | | | | |
| AUR350C AUR450C | (User preparing) Page 166 RS485 connection diagram 1) | 500m | CMC10L | RS-232 | (User preparing) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GT 21</td></tr> <tr><td>GT 21</td><td>GS 25</td></tr> <tr><td>GS 21</td><td></td></tr> </table> | GT 27 | GT 25 | GT 23 | GT 21 | GT 21 | GS 25 | GS 21 | | Up to 31 control equipment for 1 GOT |
| GT 27 | GT 25 | | | | | | | | | | | | | | | | |
| GT 23 | GT 21 | | | | | | | | | | | | | | | | |
| GT 21 | GS 25 | | | | | | | | | | | | | | | | |
| GS 21 | | | | | | | | | | | | | | | | | |
| | | | | | | GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | | | |
| | | | | | (User preparing) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 21</td><td>GT 21</td></tr> <tr><td>GT 21</td><td>R2</td></tr> </table> | GT 21 | GT 21 | GT 21 | R2 | | | | | |
| GT 21 | GT 21 | | | | | | | | | | | | | | | | |
| GT 21 | R2 | | | | | | | | | | | | | | | | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly



| Control equipment | | Connection cable | | GOT | | Number of connectable equipment |
|---------------------------------------|--------------------|--|--------------------|---|----------|-------------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| AUR350C AUR450C | RS-485 | Page 167 RS485 connection diagram 3) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 1 control equipment for 1 GOT |
| | | | | | | |
| | | Page 169 RS485 connection diagram 5) | 500m | GT15-RS4-TE | | |
| | | Page 174 RS485 connection diagram 12) | 500m | - (Built into GOT) | | |
| | | Page 183 RS485 connection diagram 27) | 500m | GT14-RS2T4-9P ^{*5} | | |
| Page 180 RS485 connection diagram 21) | 500m | - (Built into GOT) | | | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

*4 Not available to GT2505-V.

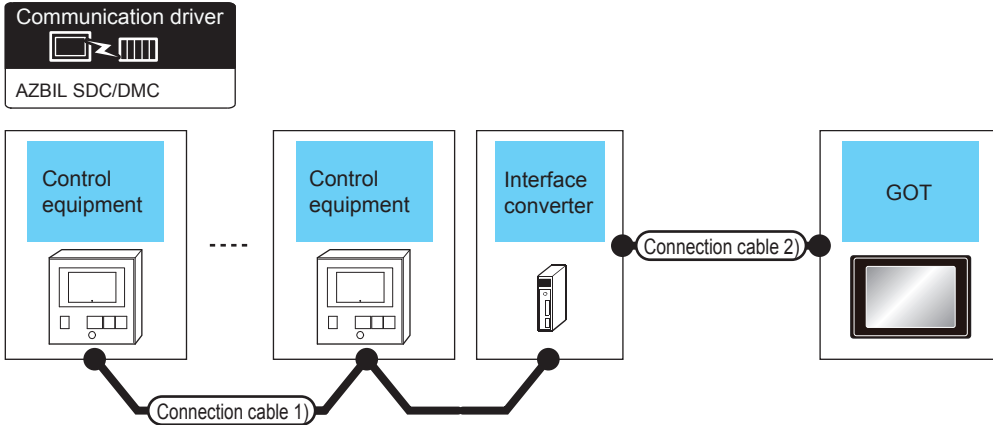
*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.

*7 Only available to GS21-W-N for GS21.

Connecting to CMC10B

When using the Interface converter

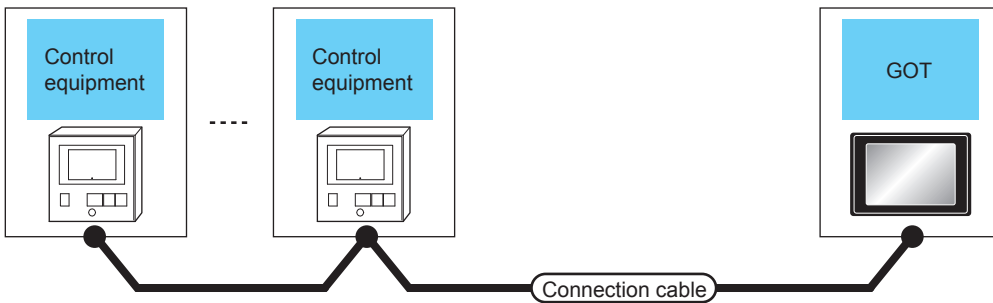
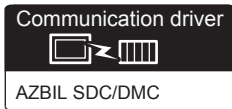


| Control equipment | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment |
|-------------------|--|--|-----------------------------------|------------|--|--|--------------------|--|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | |
| CMC10B | (User required) Page 166 RS485 connection diagram 2) | 500m | CMC10L | RS-232 | (User required) Page 164 RS232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 | Up to 31 control equipment for 1 GOT |
| | | | | | | | | GT 23 GT 21 ^{option} | |
| | | | | | | | | GS 21 GS 25 | |
| | | | | | | | GT15-RS2-9P | GT 27 GT 25 | |
| | | | | | (User required) Page 165 RS232 connection diagram 3) | 15m | - (Built into GOT) | GT 21 ^{option} GT 21 ^{option} 2104P R2 | |

*1 Product manufactured by Azbil Corporation. For details on the product, contact Azbil Corporation.

*2 GT25-W, GT2505-V does not support the option device.

When connecting directly to multiple control equipments



| Control equipment | | Connection cable | | GOT | | Number of connectable equipment | |
|---------------------------------------|--------------------|--|--------------------|---|---------------|-------------------------------------|-----------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| CMC10B | RS-485 | Page 168 RS485 connection diagram 4) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | | Up to 1 control equipment for 1 GOT | |
| | | | | | ^{*4} | | |
| | | Page 170 RS485 connection diagram 6) | 500m | - (Built into GOT) | | | ^{*7} |
| | | | | GT15-RS4-9S | | | ^{*3*4} |
| | | Page 171 RS485 connection diagram 7) | 500m | GT15-RS4-TE | | | ^{*3*4} |
| | | Page 185 RS485 connection diagram 30) | 500m | GT14-RS2T4-9P ^{*5} | | | ^{*6} |
| Page 181 RS485 connection diagram 24) | 500m | - (Built into GOT) | | | | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

*4 Not available to GT2505-V.

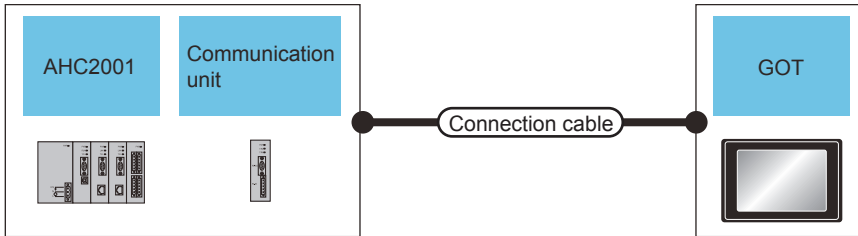
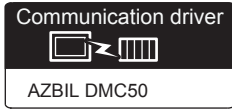
*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.




























*7 For GS21-W, use the RS-422 interface for connection.

Connecting to AHC2001

When connecting to one temperature controller



| Control equipment | | Connection cable | | GOT | | Number of connectable equipment |
|-------------------|--------------------|--------------------|--|---------------|------------------------|---|
| Model name | Communication unit | Communication Type | Cable model Connection diagram number | Max. distance | Option device Model | |
| AHC2001 | - | RS-232 | Page 164 RS232 connection diagram 2) | 15m | -(Built into GOT) | Up to 1 temperature controllers for 1 GOT |
| | SCU | | | | GT15-RS2-9P | |
| | | | Page 165 RS232 connection diagram 4) | 15m | -(Built into GOT) | |

| Control equipment | | | Connection cable | | GOT | | Number of connectable equipment |
|-------------------|--------------------|--------------------|---|--------------------|---|---|---|
| Model name | Communication unit | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| AHC2001 | SCU | RS-485 |  Page 168 RS485 connection diagram 4)(4-wire) | 500m* ¹ | FA-LTBGT2R4CBL05 (0.5m)* ² FA-LTBGT2R4CBL10 (1m)* ² FA-LTBGT2R4CBL20 (2m)* ² |     | Up to 1 temperature controllers for 1 GOT |
| | | |  Page 175 RS485 connection diagram 14)(2-wire) | | | | |
| | | |  Page 170 RS485 connection diagram 6)(4-wire) | 500m | - (Built into GOT) |      | |
| | | |  Page 176 RS485 connection diagram 15)(2-wire) | | | | |
| | | |  Page 171 RS485 connection diagram 7)(4-wire) | 500m | GT15-RS4-TE |   | |
| | | |  Page 177 RS485 connection diagram 16)(2-wire) | | | | |
| | | |  Page 185 RS485 connection diagram 30)(4-wire) | 500m | - (Built into GOT) |    | |
| | | |  Page 186 RS485 connection diagram 31)(2-wire) | | | | |
| | | |  Page 181 RS485 connection diagram 24)(4-wire) | 500m | - (Built into GOT) |    | |
| | | |  Page 182 RS485 connection diagram 25)(2-wire) | | | | |

*1 Including the cable length of the option devices.

*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 Not available to GT25-W.

*4 Not available to GT2505-V.

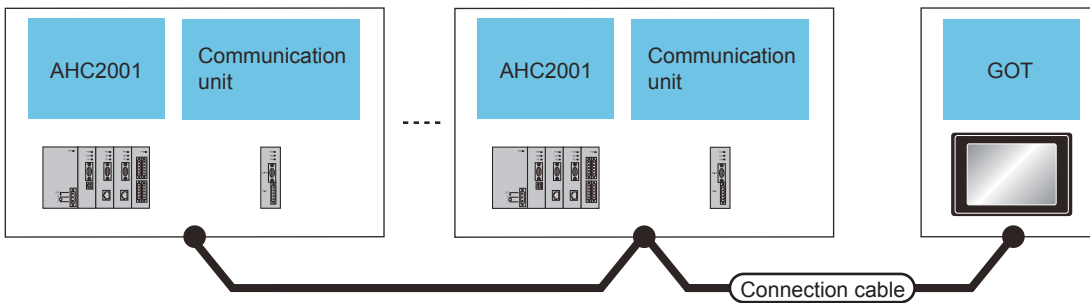
*5 Mount it on the RS-232 interface (GOT built-in).

*6 Only available to GT2505-V.

*7 For GS21-W, use the RS-422 interface for connection.

*8 Only available to GS21-W-N for GS21.

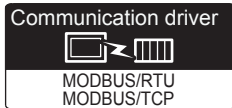
When connecting to multiple temperature controllers



| Control equipment | | Connection cable | | GOT | | Number of connectable equipment |
|-------------------|--------------------|--------------------|---|--------------------|---|---------------------------------|
| Model name | Communication unit | Communication Type | Cable model Connection diagram number | Max. distance | Option device Model | |
| AHC2001 | SCU | RS-485 | Page 168 RS485 connection diagram 4)(4-wire) | 500m ^{*1} | FA-LTBGT2R4CBL05 (0.5m) ^{*2} FA-LTBGT2R4CBL10 (1m) ^{*2} FA-LTBGT2R4CBL20 (2m) ^{*2} | |
| | | | Page 175 RS485 connection diagram 14)(2-wire) | | | |
| | | | Page 170 RS485 connection diagram 6)(4-wire) | 500m | - (Built into GOT) | |
| | | | Page 176 RS485 connection diagram 15)(2-wire) | 500m | - (Built into GOT) | |
| | | | Page 171 RS485 connection diagram 7)(4-wire) | 500m | GT15-RS4-TE | |
| | | | Page 177 RS485 connection diagram 16)(2-wire) | | | |
| | | | Page 185 RS485 connection diagram 30)(4-wire) | 500m | GT14-RS2T4-9P ^{*5} | |
| | | | Page 186 RS485 connection diagram 31)(2-wire) | | | |
| | | | Page 181 RS485 connection diagram 24)(4-wire) | 500m | - (Built into GOT) | |
| | | | Page 182 RS485 connection diagram 25)(2-wire) | | | |

- *1 Including the cable length of the option devices.
- *2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.
- *3 Not available to GT25-W.
- *4 Not available to GT2505-V.
- *5 Mount it on the RS-232 interface (GOT built-in).
- *6 Only available to GT2505-V.
- *7 For GS21-W, use the RS-422 interface for connection.
- *8 Only available to GS21-W-N for GS21.

Connecting to NX series



Use a MODBUS/RTU or MODBUS/TCP communication driver to connect the GOT to NX series.

For the MODBUS/RTU or MODBUS/TCP connection, refer to the following manual.

 GOT2000 Series Connection Manual (Microcomputer/MODBUS/Peripheral Connection)

5. MODBUS/RTU MASTER CONNECTION

6. MODBUS/TCP MASTER CONNECTION

For the valid devices, refer to the following Technical News.

 List of Valid Devices Applicable for GOT2000 Series MODBUS Connection for Overseas (GOT-A-0170)

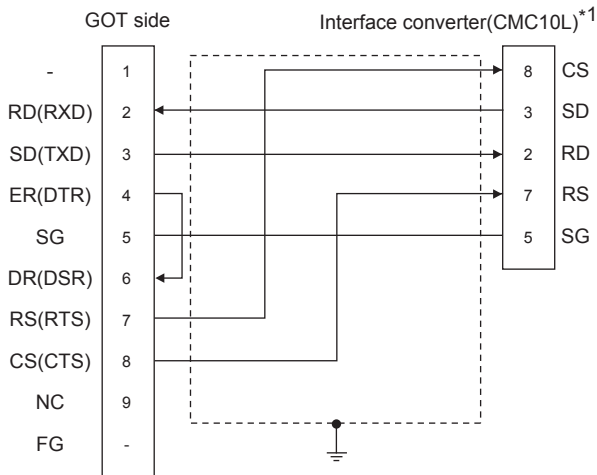
3.3 Connection Diagram

The following diagram shows the connection between the GOT and the control equipment.

RS-232 cable

Connection diagram

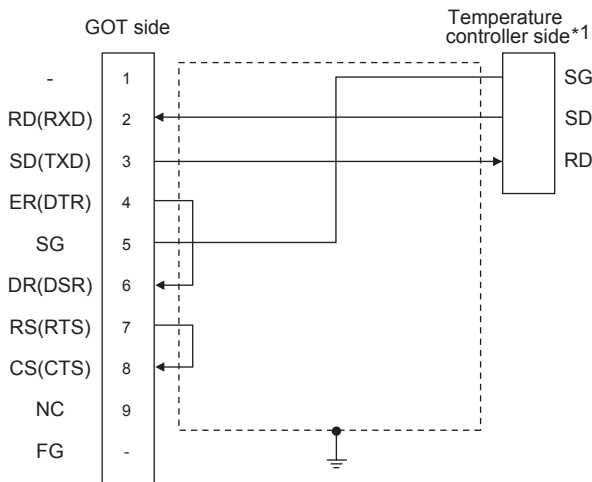
■RS232 connection diagram 1)



*1 For details on the setting method of the TERMINAL mode, refer to the following.

☞ Page 193 Connecting to CMC10L

■RS232 connection diagram 2)

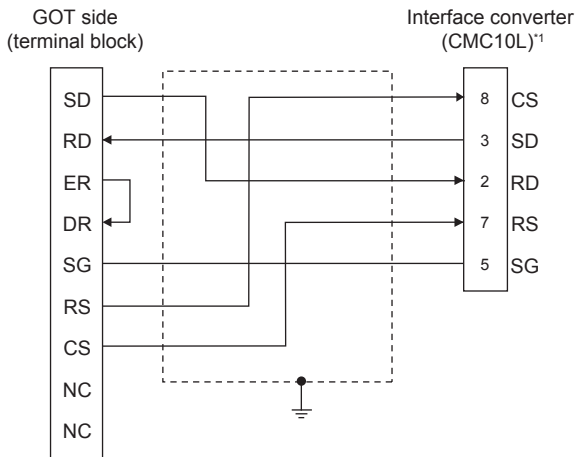


*1 Pin No. of temperature controller differs depending on model and optional function model.

Refer to the following table. The numbers in () of the following table correspond to optional function models.

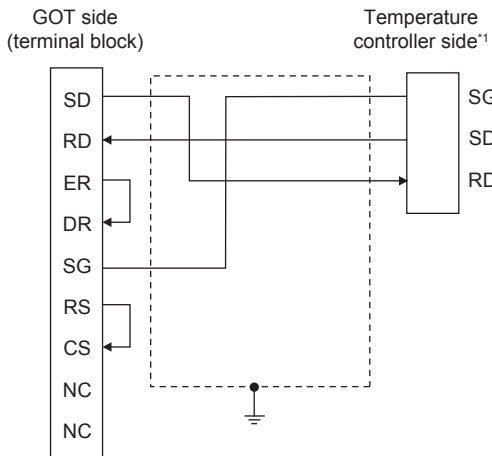
| Signal name | Model of temperature controller | | | | | |
|-------------|---------------------------------|---------|--------------|------------------------|---------|---------|
| | SDC20 | | SDC21 | SDC40A, SDC40B, SDC40G | AHC2001 | |
| | (03, 05) | (10) | (04, 07, 09) | | CPU | SCU |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| SG | 5 | 18 | 29 | 61 | 5 | 5 |
| SD | 17 | 16 | 27 | 60 | 3 | 3 |
| RD | 18 | 17 | 28 | 59 | 2 | 2 |

RS232 connection diagram 3)



*1 For details on the setting method of the TERMINAL mode, refer to the following.
 ☞ Page 193 Connecting to CMC10L

RS232 connection diagram 4)



*1 Pin No. of temperature controller differs depending on model and optional function model.
 Refer to the following table. The numbers in () of the following table correspond to optional function models.

| Signal name | Model of temperature controller | | | | | |
|-------------|---------------------------------|---------|--------------|------------------------|---------|---------|
| | SDC20 | | SDC21 | SDC40A, SDC40B, SDC40G | AHC2001 | |
| | (03, 05) | (10) | (04, 07, 09) | | CPU | SCU |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| SG | 5 | 18 | 29 | 61 | 5 | 5 |
| SD | 17 | 16 | 27 | 60 | 3 | 3 |
| RD | 18 | 17 | 28 | 59 | 2 | 2 |

Precautions when preparing a cable

Cable length

The length of the RS-232 cable must be 15m or less.

GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

AZBIL control equipment side connector

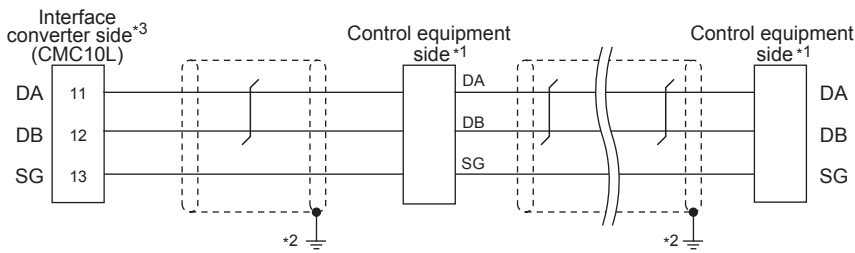
Use the connector compatible with the AZBIL control equipment side module.

For details, refer to the user's manual of the AZBIL control equipment

RS-485 cable

Connection diagram

■RS485 connection diagram 1)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|----------------------|--------------------|
| | DMC10 | SDC15 | SDC25/26 SDC35/36 | AUR350C AUR450C |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | 4 | 16 | 22 | DA |
| DB | 5 | 17 | 23 | DB |
| SG | 6 | 18 | 24 | SG |

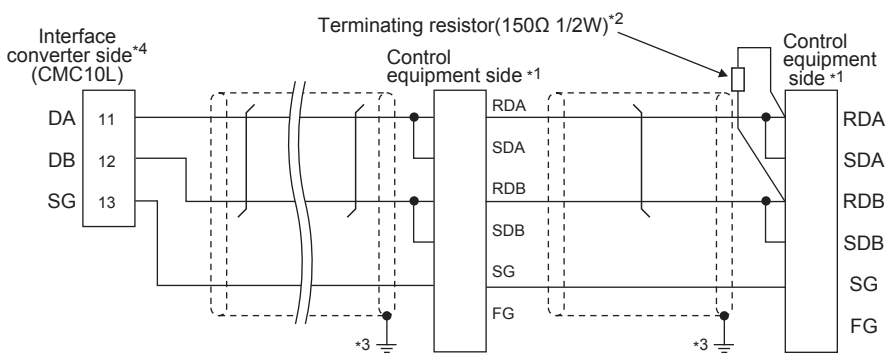
*2 Connect FG grounding to the single-sided end of a cable shield line.

*3 Set the terminal resistor to "Disable".

For details of terminating resistor settings, refer to the following.

☞ Page 193 Connecting to CMC10L

■RS485 connection diagram 2)



*1 Pin No. of control equipment differs depending on model and optional function model. Refer to the following table. The numbers in () of the following table correspond to optional function models.

| Signal name | Model of control equipment | | | | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|--------------------|---------------|------------|---------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/ 40B/40G | CMF050 CML | PBC201-VN2 | CMC10B |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | Pin No. | Pin No. | Pin No. | Pin No. |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 | 7 | 14 | 13 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 | 8 | 15 | 14 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 | 9 | 12 | 11 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 | 10 | 13 | 12 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 | 12 | 16 | 15 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 | 19 | 3 | - |

*2 Terminating resistor should be provided for a Interface converter and a control equipment which will be terminals.

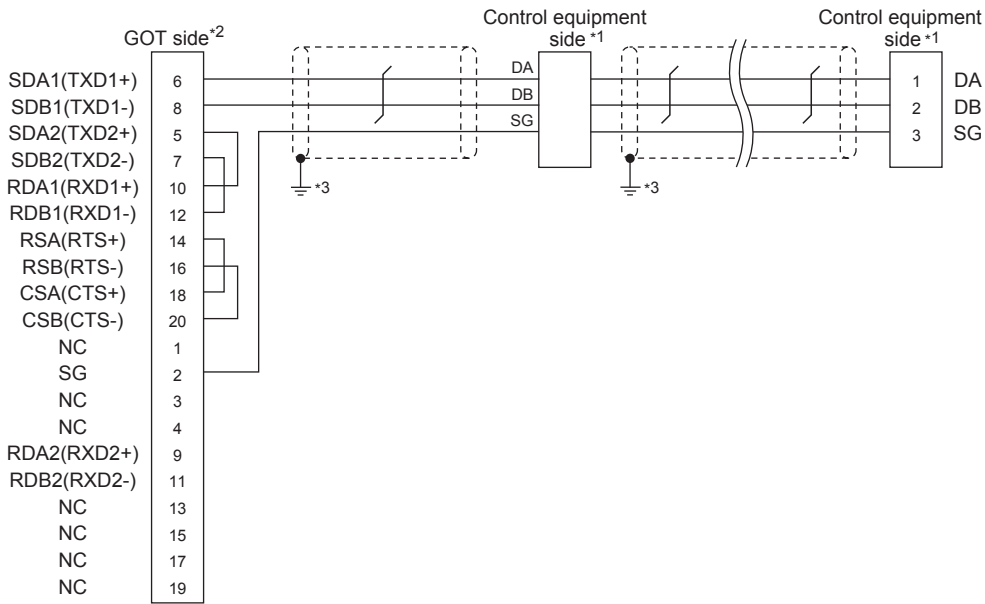
*3 Connect FG grounding to the single-sided end of a cable shield line.

*4 Since the Interface converter has a built-in terminating resistor, set the terminating resistor of GOT to "Enable".

For details of terminating resistor settings, refer to the following.

☞ Page 193 Connecting to CMC10L

■RS485 connection diagram 3)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

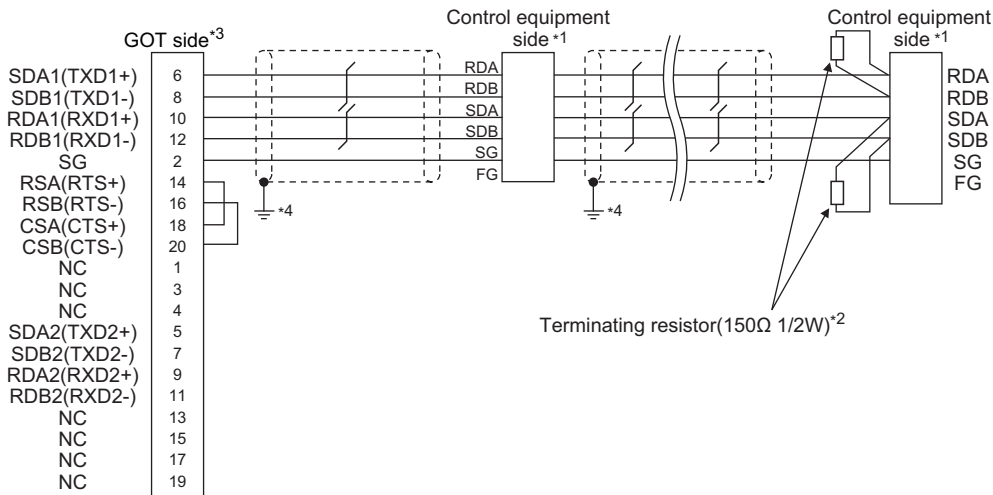
| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|----------------------|--------------------|
| | DMC10 | SDC15 | SDC25/26 SDC35/36 | AUR350C AUR450C |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | 4 | 16 | 22 | DA |
| DB | 5 | 17 | 23 | DB |
| SG | 6 | 18 | 24 | SG |

*2 Set the terminating resistor of GOT as follows.
Set the terminating resistor setting switch of the GOT main unit to "Disable".

Page 187 Connecting terminating resistors

*3 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 4)



*1 Pin No. of control equipment differs depending on model or optional function model.

Refer to the following table. The numbers in () of the following table correspond to optional function models.


| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | | |
|-------------|----------------------------|--|------------|---------|---------|
| | CMF050 CML | | PBC201-VN2 | CMC10B | AHC2001 |
| | Pin No. | | Pin No. | Pin No. | Pin No. |
| RDA | 7 | | 14 | 13 | 3 |
| RDB | 8 | | 15 | 14 | 2 |
| SDA | 9 | | 12 | 11 | 5 |
| SDB | 10 | | 13 | 12 | 4 |
| SG | 12 | | 16 | 15 | 1 |
| FG | 19 | | 3 | - | - |

*2 Terminating resistor should be provided for a control equipment which will be a terminal.

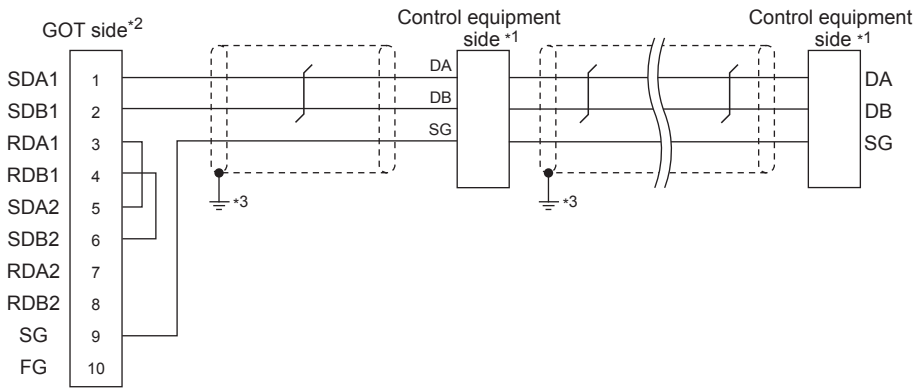
*3 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "100 OHM".

 Page 187 Connecting terminating resistors


*4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 5)

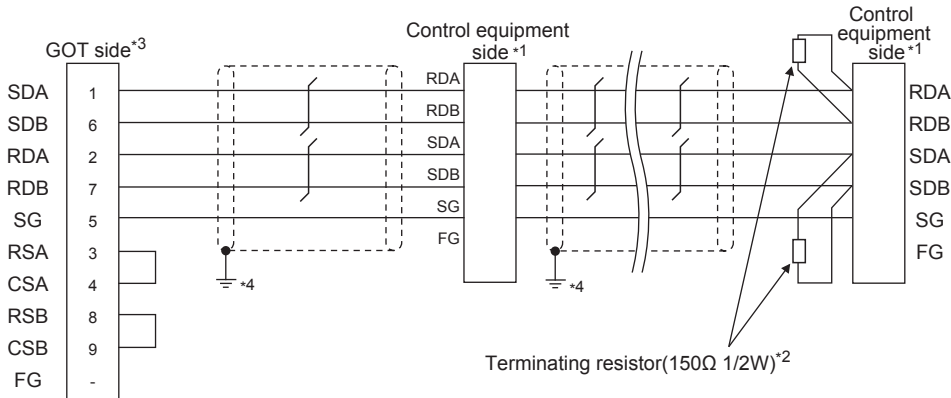


*1 Pin No. of Model of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|----------------------|--------------------|
| | DMC10 | SDC15 | SDC25/26 SDC35/36 | AUR350C AUR450C |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | 4 | 16 | 22 | DA |
| DB | 5 | 17 | 23 | DB |
| SG | 6 | 18 | 24 | SG |

- *2 Set the terminating resistor of GOT as follows.
 Set the terminating resistor setting switch of the GOT main unit to "Disable".
 Page 187 Connecting terminating resistors
- *3 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 6)



*1 Pin No. of control equipment differs depending on model or optional function model.

Refer to the following table. The numbers in () of the following table correspond to optional function models.

| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 | PBC201-VN2 | CMC10B | AHC2001 |
| | CML | | | |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

*2 Terminating resistor should be provided for a control equipment which will be a terminal.

*3 Set the terminating resistor of GOT as follows.

For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Enable".

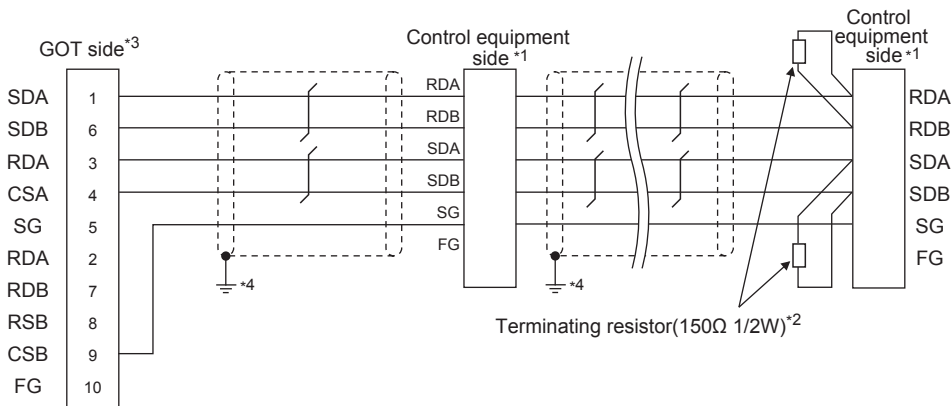
For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 330 Ω.

For GS21-W, since the terminating resistor is fixed to 330 Ω, no setting is required for the terminating resistor.

☞ Page 187 Connecting terminating resistors

*4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 7)



*1 Pin No. of control equipment differs depending on model or optional function model.
Refer to the following table. The numbers in () of the following table correspond to optional function models.

| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 CML | PBC201-VN2 | CMC10B | AHC2001 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

*2 Terminating resistor should be provided for a control equipment which will be a terminal.

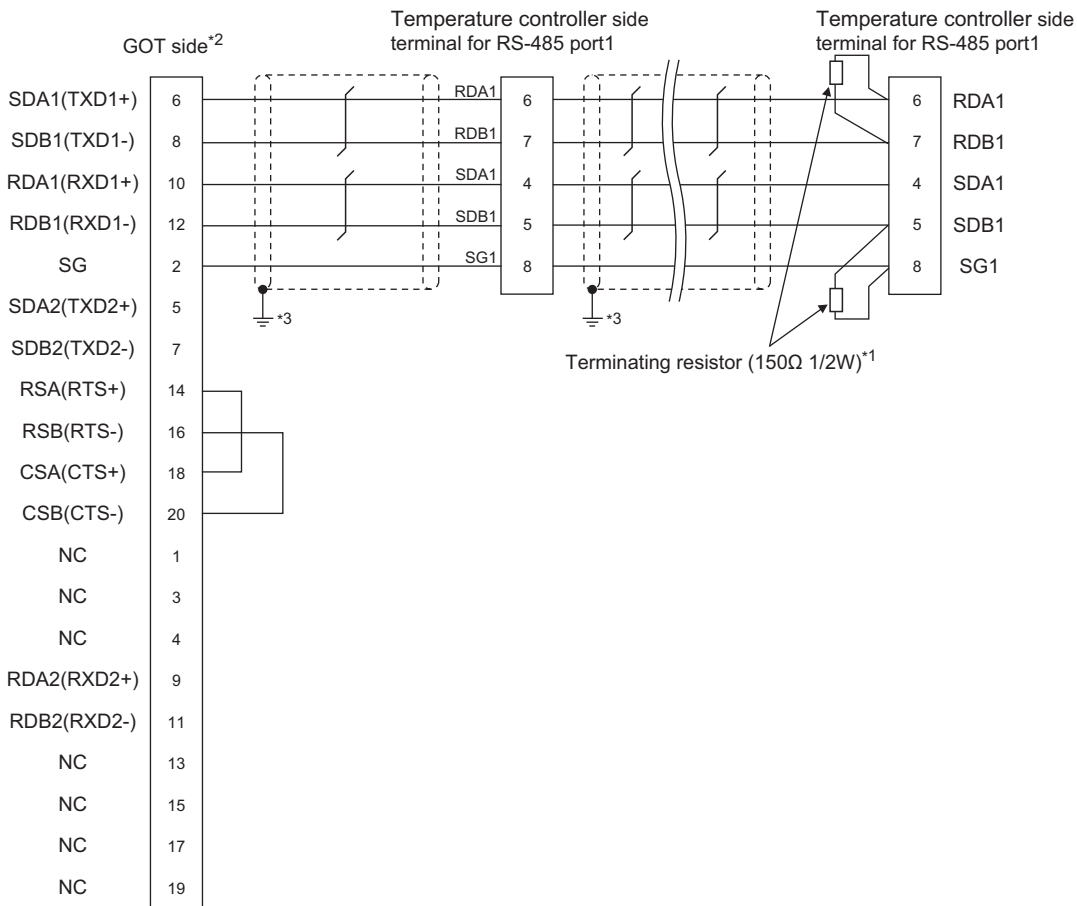
*3 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "100 OHM".

☞ Page 187 Connecting terminating resistors

*4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 8)



*1 Terminating resistor should be provided for a temperature controller which will be a terminal.

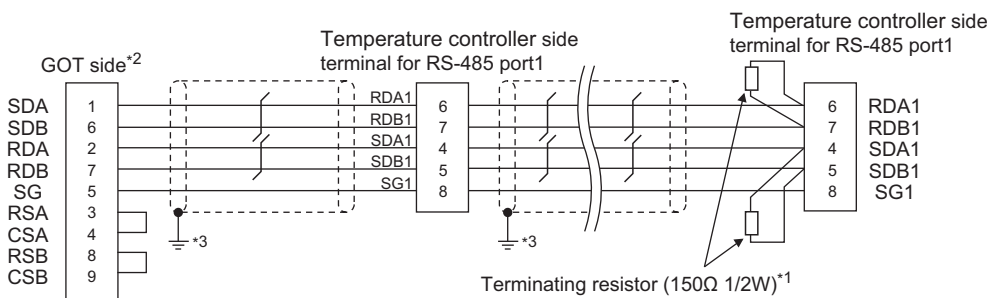
*2 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "100 OHM".

☞ Page 187 Connecting terminating resistors

*3 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 9)



*1 Terminating resistor should be provided for a temperature controller which will be a terminal.

*2 Set the terminating resistor of GOT as follows.

For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Enable".

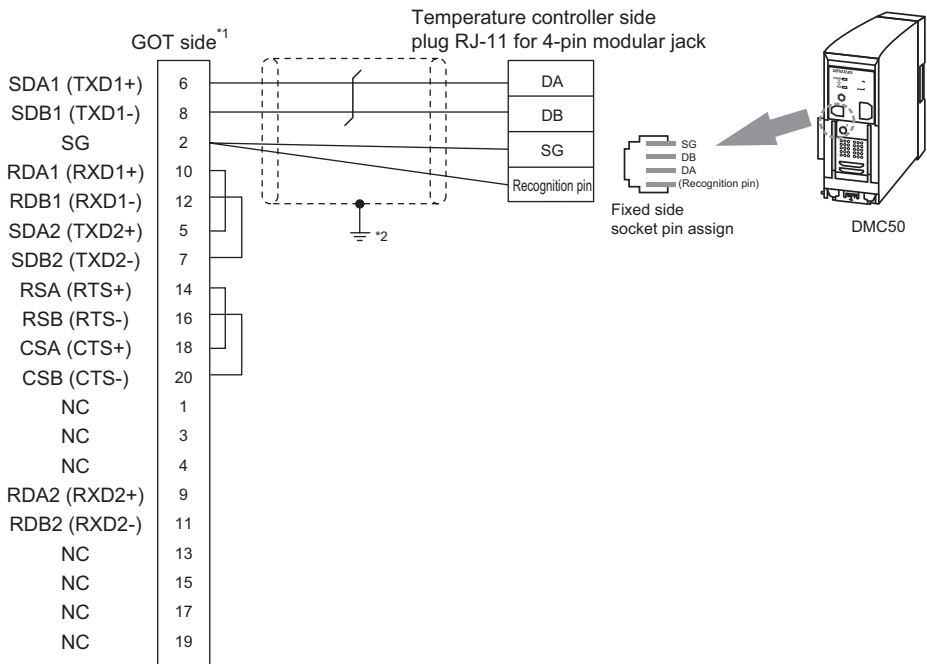
For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 330 Ω.

For GS21-W, since the terminating resistor is fixed to 330 Ω, no setting is required for the terminating resistor.

☞ Page 187 Connecting terminating resistors

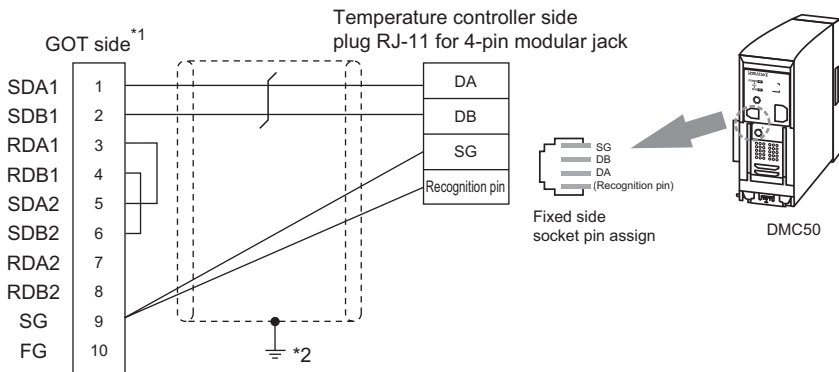
*3 Connect FG grounding to the single-sided end of a cable shield line.

RS485 connection diagram 10)



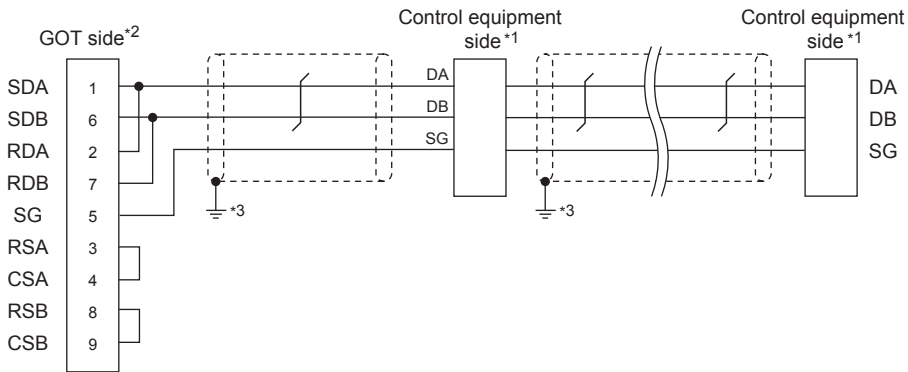
- *1 Set the terminating resistor of GOT as follows.
Set the terminating resistor setting switch of the GOT main unit to "100 OHM".
☞ Page 187 Connecting terminating resistors
- *2 Connect FG grounding to the single-sided end of a cable shield line.

RS485 connection diagram 11)



- *1 Set the terminating resistor of GOT as follows.
Set the terminating resistor setting switch of the GOT main unit to "100 OHM".
☞ Page 187 Connecting terminating resistors
- *2 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 12)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

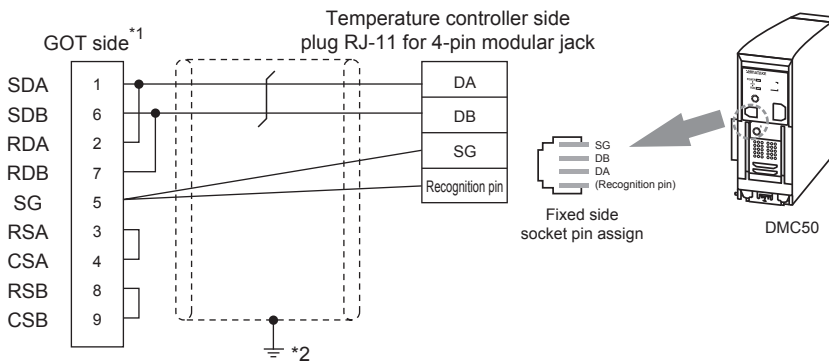
| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|----------------------|--------------------|
| | DMC10 | SDC15 | SDC25/26 SDC35/36 | AUR350C AUR450C |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | 4 | 16 | 22 | DA |
| DB | 5 | 17 | 23 | DB |
| SG | 6 | 18 | 24 | SG |

*2 For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Disable".
For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to OPEN.

☞ Page 187 Connecting terminating resistors

*3 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 13)

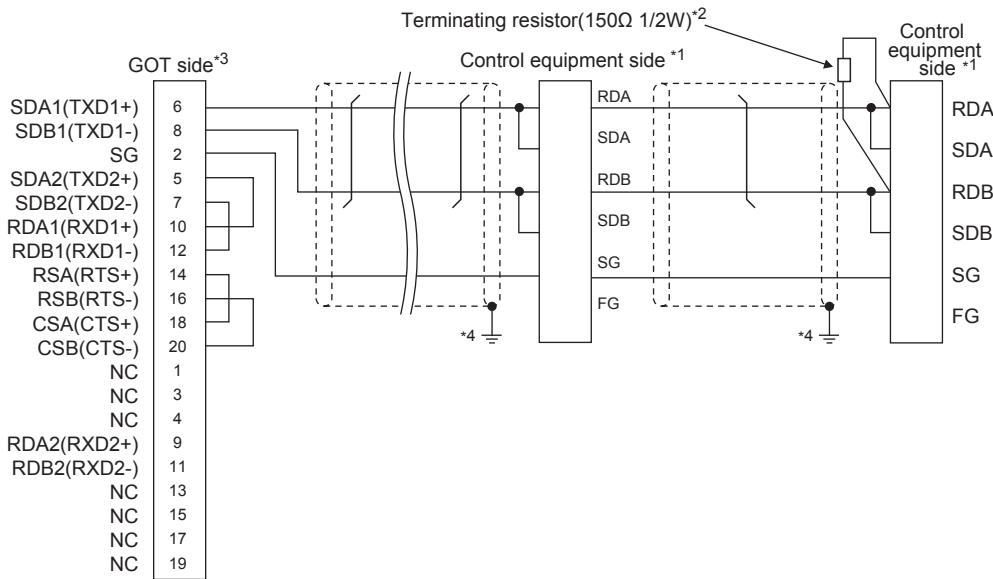


*1 For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Enable".
For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 110 Ω.

☞ Page 187 Connecting terminating resistors

*2 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 14)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 | PBC201-VN2 | CMC10B | AHC2001 |
| | CML | | | |
| Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

*2 Terminating resistor should be provided for a control equipment which will be a terminal.

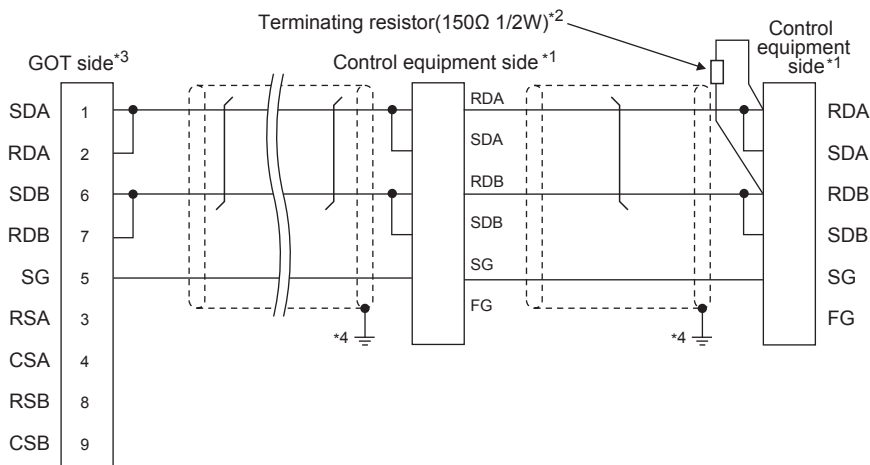
*3 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "100 OHM".

☞ Page 187 Connecting terminating resistors

*4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 15)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|--------------|----------------|
| | SDC20 | | SDC21 | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 17 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 CML | PBC201-VN2 | CMC10B | AHC2001 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

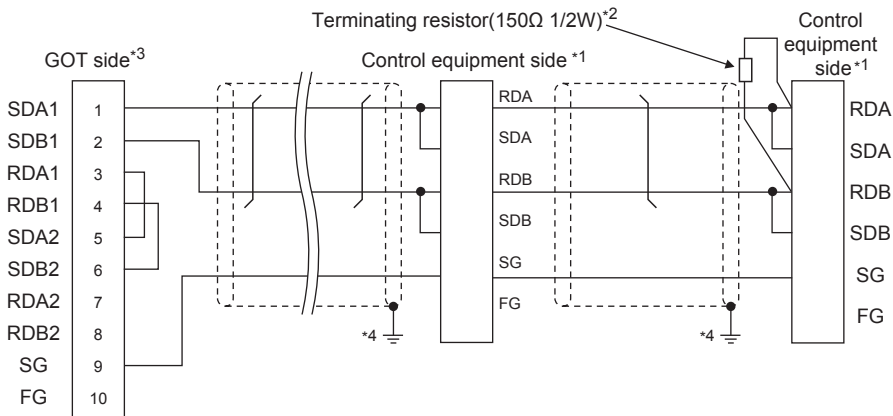
*2 Terminating resistor should be provided for a control equipment which will be a terminal.

*3 For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Enable".
For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 110 Ω.

☞ Page 187 Connecting terminating resistors

*4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 16)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.


| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 | PBC201-VN2 | CMC10B | AHC2001 |
| | CML | | | |
| Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

*2 Terminating resistor should be provided for a control equipment which will be a terminal.

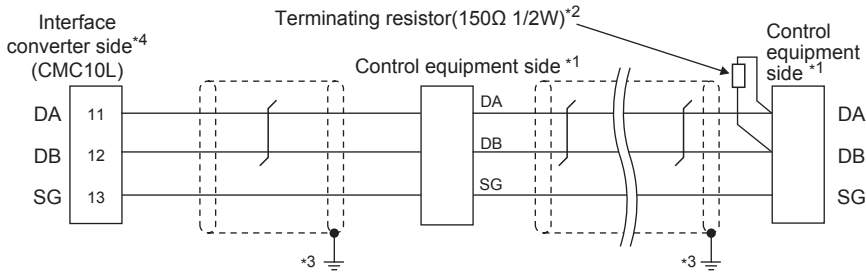
*3 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "100 OHM".

 Page 187 Connecting terminating resistors

*4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 17)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table

| Signal name | Model of control equipment | | | | |
|-------------|----------------------------|---------------|------------|---------|---------|
| | SDC45/46 | CMS CMF015 | MQV MPC | MVF | RX |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | C10 | 5 | 7 | 1 | 1 |
| DB | C11 | 6 | 8 | 2 | 2 |
| SG | C12 | 10 | 9 | 7 | 3 |

*2 Terminating resistor should be provided for an Interface converter and a control equipment which will be terminals.

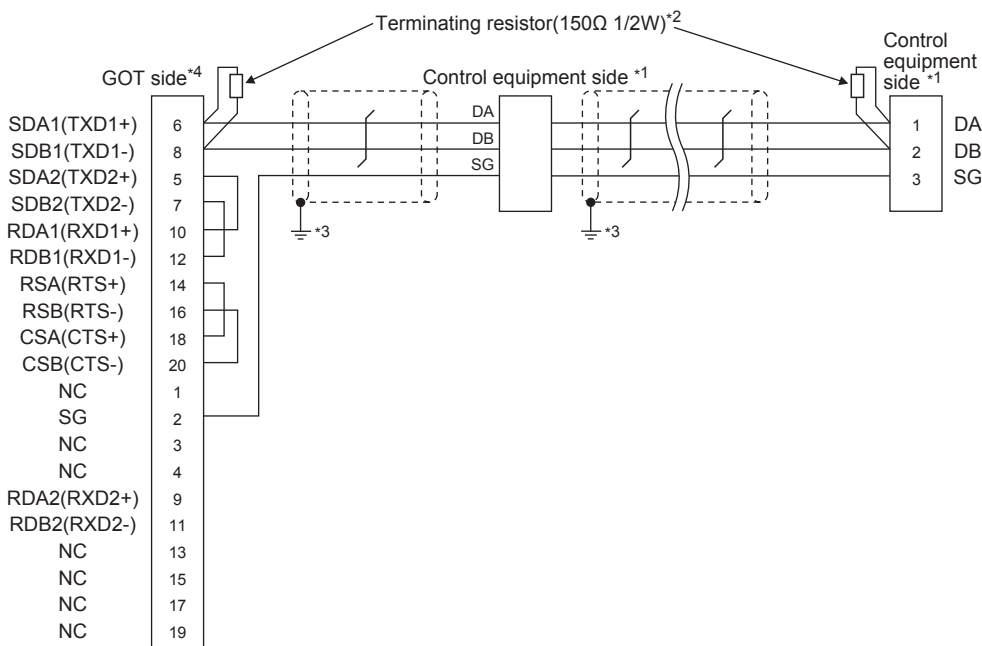
*3 Connect FG grounding to the single-sided end of a cable shield line.

*4 Since the Interface converter has a built-in terminating resistor, set the terminating resistor of GOT to "Enable".

For details of terminating resistor settings, refer to the following.

☞ Page 193 Connecting to CMC10L

■RS485 connection diagram 18)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table

| Signal name | Model of control equipment | | | | |
|-------------|----------------------------|---------------|------------|---------|---------|
| | SDC45/46 | CMS CMF015 | MQV MPC | MVF | RX |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | C10 | 5 | 7 | 1 | 1 |
| DB | C11 | 6 | 8 | 2 | 2 |
| SG | C12 | 10 | 9 | 7 | 3 |

*2 Terminating resistor should be provided for an Interface converter and a control equipment which will be terminals.

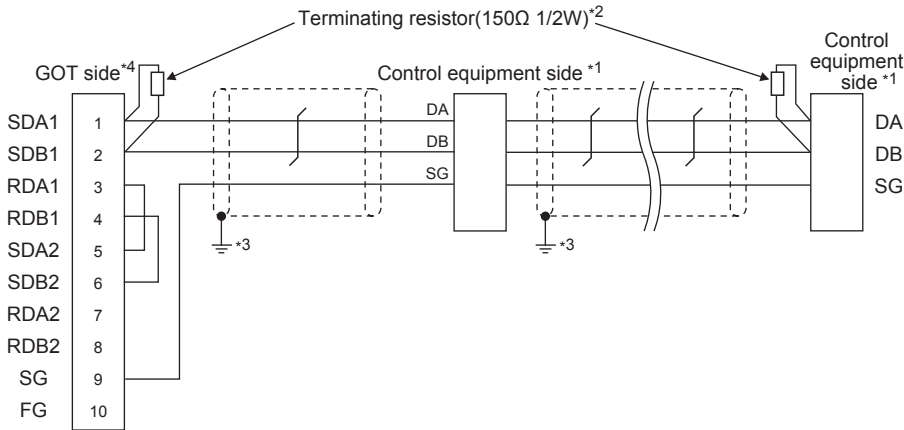
*3 Connect FG grounding to the single-sided end of a cable shield line.

*4 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "Disable".

☞ Page 187 Connecting terminating resistors

■RS485 connection diagram 19)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table

| Signal name | Model of control equipment | | | | |
|-------------|----------------------------|---------------|------------|---------|---------|
| | SDC45/46 | CMS CMF015 | MQV MPC | MVF | RX |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | C10 | 5 | 7 | 1 | 1 |
| DB | C11 | 6 | 8 | 2 | 2 |
| SG | C12 | 10 | 9 | 7 | 3 |

*2 Terminating resistor should be provided for an Interface converter and a control equipment which will be terminals.

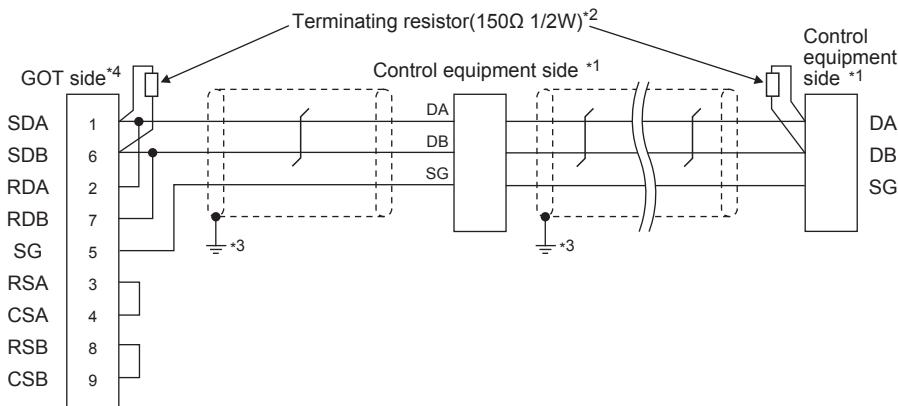
*3 Connect FG grounding to the single-sided end of a cable shield line.

*4 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "Disable".

☞ Page 187 Connecting terminating resistors

■RS485 connection diagram 20)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table

| Signal name | Model of control equipment | | | | |
|-------------|----------------------------|---------------|------------|---------|---------|
| | SDC45/46 | CMS CMF015 | MQV MPC | MVF | RX |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | C10 | 5 | 7 | 1 | 1 |
| DB | C11 | 6 | 8 | 2 | 2 |
| SG | C12 | 10 | 9 | 7 | 3 |

*2 For GT27, GT25 except GT2505-V, GT23, and GS25, terminating resistor should be provided for an interface converter and control equipment which will be terminals.

*3 Connect FG grounding to the single-sided end of a cable shield line.

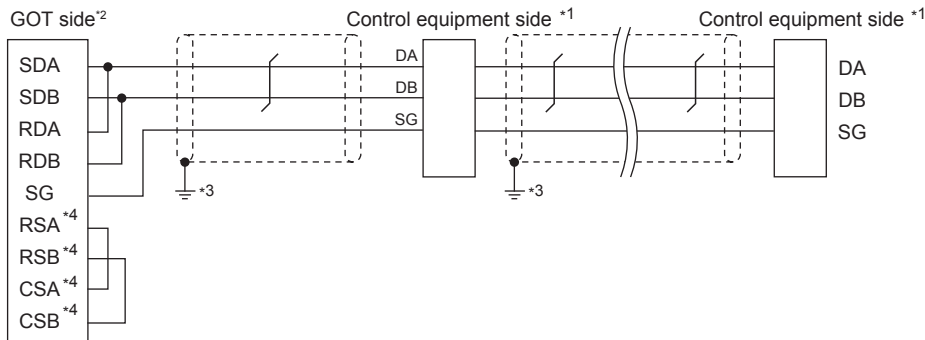
*4 Set the terminating resistor of GOT as follows.

For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Disable".

For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 110 Ω.

☞ Page 187 Connecting terminating resistors

■RS485 connection diagram 21)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|----------------------|--------------------|
| | DMC10 | SDC15 | SDC25/26 SDC35/36 | AUR350C AUR450C |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | 4 | 16 | 22 | DA |
| DB | 5 | 17 | 23 | DB |
| SG | 6 | 18 | 24 | SG |

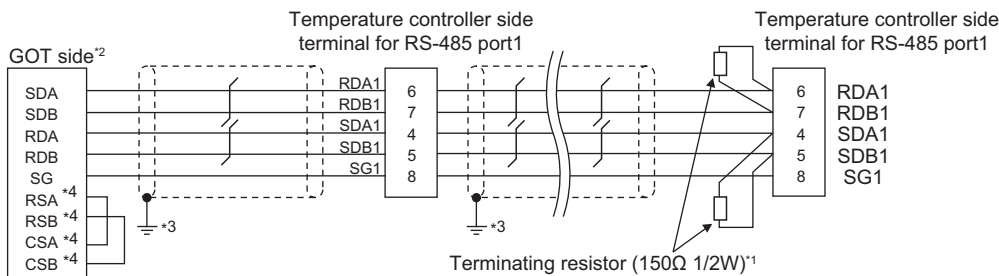
*2 Set the terminating resistor setting switch to OPEN.

☞ Page 187 Connecting terminating resistors

*3 Connect FG grounding to the single-sided end of a cable shield line.

*4 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS485 connection diagram 22)



*1 Terminating resistor should be provided for a temperature controller which will be a terminal.

*2 Set the terminating resistor of GOT as follows.

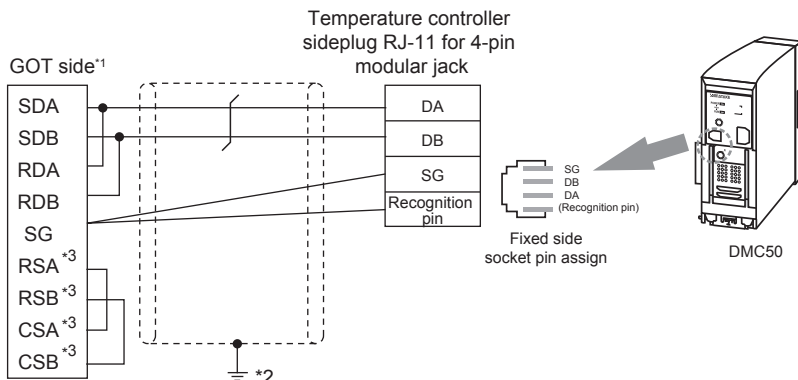
Set the terminating resistor setting switch of the GOT main unit to "330Ω".

☞ Page 187 Connecting terminating resistors

*3 Connect FG grounding to the single-sided end of a cable shield line.

*4 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS485 connection diagram 23)



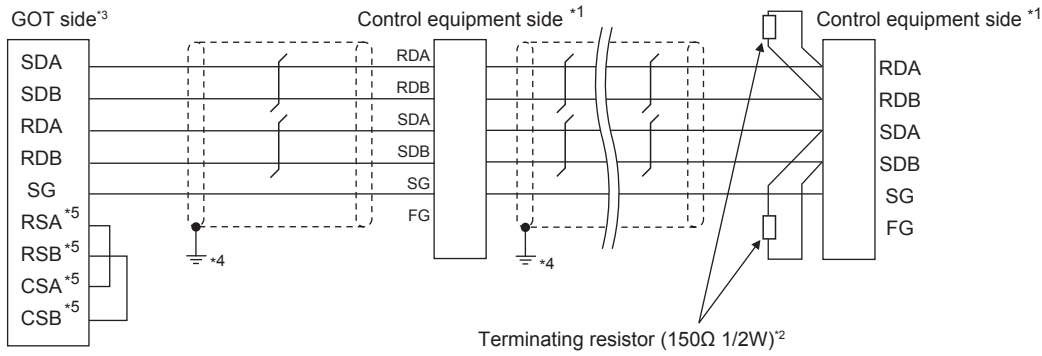
*1 Set the terminating resistor setting switch of the GOT main unit to "110Ω".

☞ Page 187 Connecting terminating resistors

*2 Connect FG grounding to the single-sided end of a cable shield line.

*3 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS485 connection diagram 24)



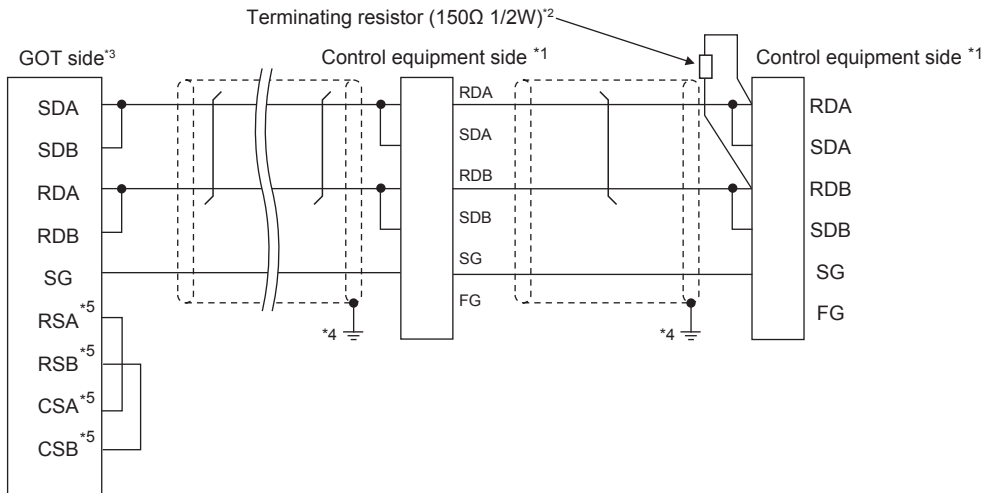
*1 Pin No. of control equipment differs depending on model and optional function model.
 Refer to the following table. The numbers in () of the following table correspond to optional function models.

| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 CML | PBC201-VN2 | CMC10B | AHC2001 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

- *2 Terminating resistor should be provided for a control equipment which will be a terminal.
- *3 Set the terminating resistor of GOT as follows.
 Set the terminating resistor setting switch of the GOT main unit to "330Ω".
 Page 187 Connecting terminating resistors
- *4 Connect FG grounding to the single-sided end of a cable shield line.
- *5 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS485 connection diagram 25)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|--------------|----------------|
| | SDC20 | | SDC21 | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | |
| Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 CML | PBC201-VN2 | CMC10B | AHC2001 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

*2 Terminating resistor should be provided for a control equipment which will be a terminal.

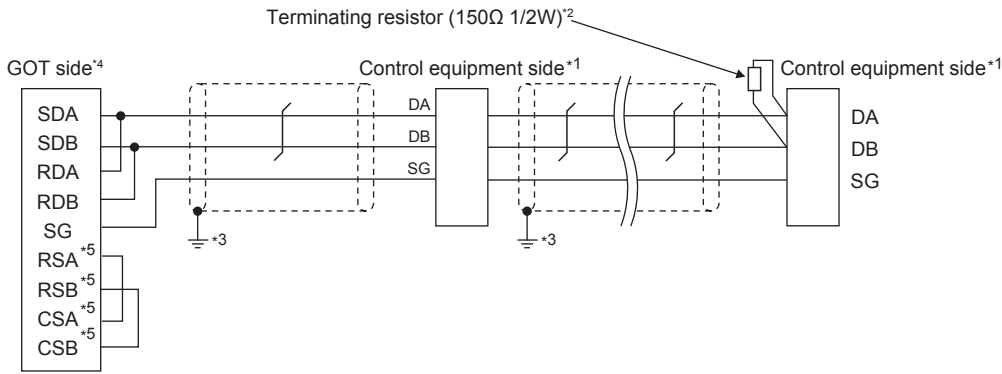
*3 Set the terminating resistor setting switch of the GOT main unit to "110Ω".

☞ Page 187 Connecting terminating resistors

*4 Connect FG grounding to the single-sided end of a cable shield line.

*5 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS485 connection diagram 26)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | | |
|-------------|----------------------------|---------------|------------|---------|---------|
| | SDC45/46 | CMS CMF015 | MQV MPC | MVF | RX |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | C10 | 5 | 7 | 1 | 1 |
| DB | C11 | 6 | 8 | 2 | 2 |
| SG | C12 | 10 | 9 | 7 | 3 |

*2 Terminating resistor should be provided for an Interface converter and a control equipment which will be terminals.

*3 Connect FG grounding to the single-sided end of a cable shield line.

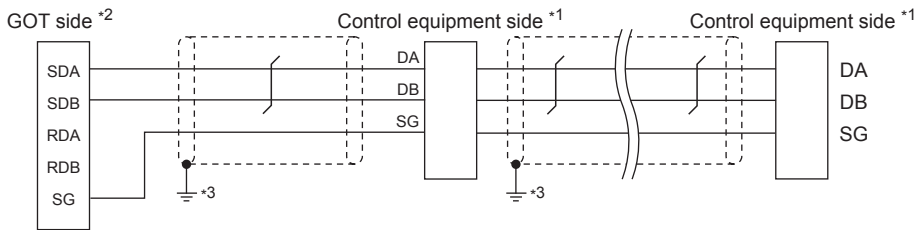
*4 Set the terminating resistor of GOT as follows.

Set the terminating resistor setting switch of the GOT main unit to "110Ω".

☞ Page 187 Connecting terminating resistors

*5 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS485 connection diagram 27)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|---------|----------------------|--------------------|
| | DMC10 | SDC15 | SDC25/26 SDC35/36 | AUR350C AUR450C |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | 4 | 16 | 22 | DA |
| DB | 5 | 17 | 23 | DB |
| SG | 6 | 18 | 24 | SG |

*2 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adaptor as shown below.

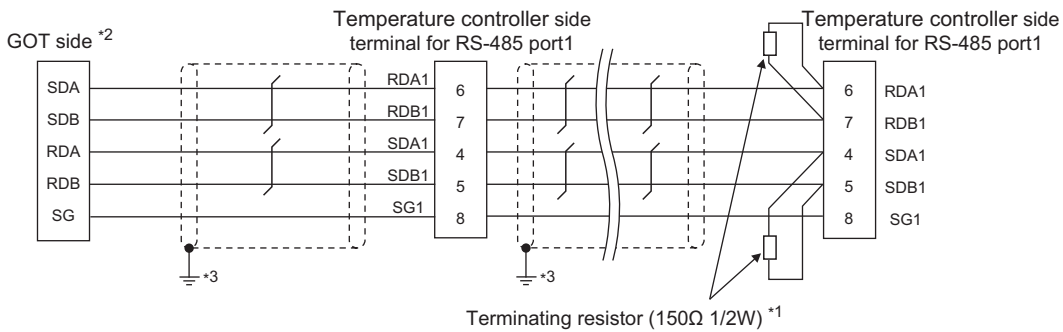
2-wire/4-wire: 2-wire (1Pair)

Terminating resistor: OPEN

☞ Page 68 Setting the RS-232/485 signal conversion adaptor

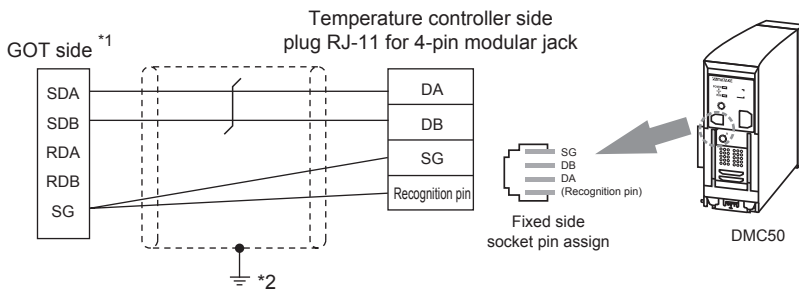
*3 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 28)



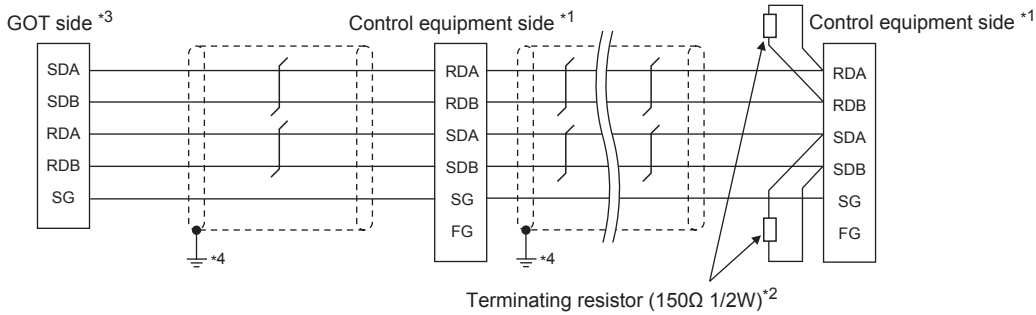
- *1 Terminating resistor should be provided for a temperature controller which will be a terminal.
- *2 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adaptor as shown below.
2-wire/4-wire: 4-wire (2Pair)
Terminating resistor: 330 Ω
☞ Page 68 Setting the RS-232/485 signal conversion adaptor
- *3 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 29)



- *1 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adaptor as shown below.
2-wire/4-wire: 2-wire (1Pair)
Terminating resistor: 110 Ω
☞ Page 68 Setting the RS-232/485 signal conversion adaptor
- *2 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 30)



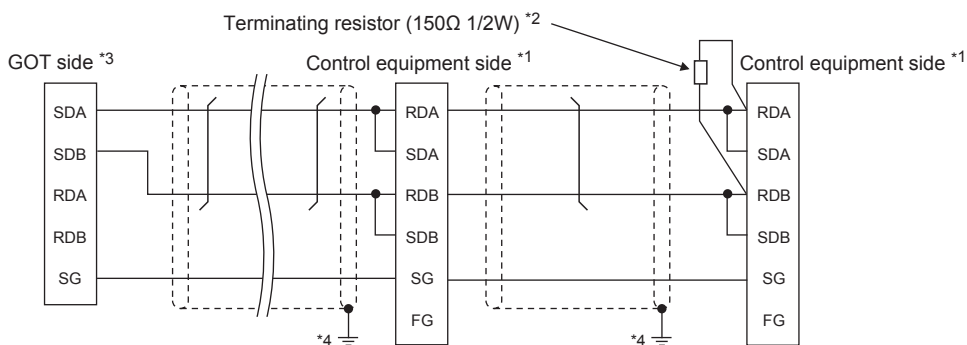
- *1 Pin No. of control equipment differs depending on model and optional function model.
Refer to the following table.
The numbers in () of the following table correspond to optional function models.

| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 CML | PBC201-VN2 | CMC10B | AHC2001 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

- *2 Terminating resistor should be provided for a control equipment which will be a terminal.
*3 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adaptor as shown below.
2-wire/4-wire: 4-wire (2Pair)
Terminating resistor: 330 Ω
☞ Page 68 Setting the RS-232/485 signal conversion adaptor
*4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 31)



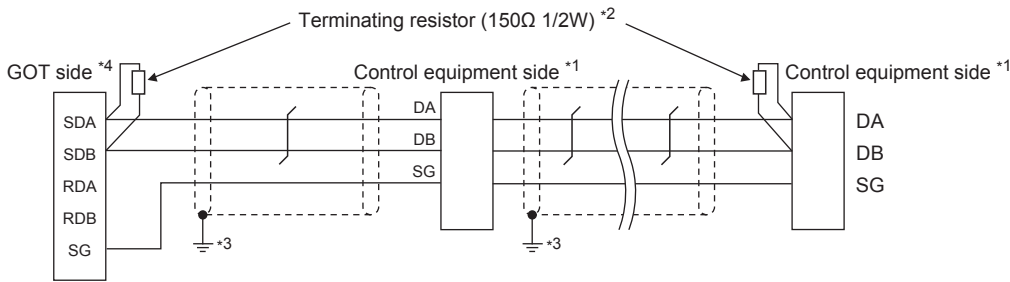
- *1 Pin No. of control equipment differs depending on model and optional function model. Refer to the following table.
The numbers in () of the following table correspond to optional function models.

| Signal name | Model of control equipment | | | | | | |
|-------------|----------------------------|---------|--------------|------------|---------|------------|----------------|
| | SDC20 | | SDC21 | SDC30 | SDC31 | | SDC40A/40B/40G |
| | (02, 04) | (09) | (03, 06, 08) | (040, 041) | (045) | (446, 546) | |
| Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| RDA | 17 | 18 | 27 | 18 | 18 | 27 | 59 |
| RDB | 18 | 19 | 28 | 19 | 19 | 28 | 60 |
| SDA | 15 | 16 | 25 | 16 | 16 | 25 | 57 |
| SDB | 16 | 17 | 26 | 17 | 17 | 26 | 58 |
| SG | 5 | 5 | 29 | 5 | 5 | 29 | 61 |
| FG | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3, 4 | 3 |

| Signal name | Model of control equipment | | | |
|-------------|----------------------------|------------|---------|---------|
| | CMF050 CML | PBC201-VN2 | CMC10B | AHC2001 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| RDA | 7 | 14 | 13 | 3 |
| RDB | 8 | 15 | 14 | 2 |
| SDA | 9 | 12 | 11 | 5 |
| SDB | 10 | 13 | 12 | 4 |
| SG | 12 | 16 | 15 | 1 |
| FG | 19 | 3 | - | - |

- *2 Terminating resistor should be provided for a control equipment which will be a terminal.
- *3 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adapter as shown below.
2-wire/4-wire: 2-wire (1Pair)
Terminating resistor: 110 Ω
☞ Page 68 Setting the RS-232/485 signal conversion adaptor
- *4 Connect FG grounding to the single-sided end of a cable shield line.

■RS485 connection diagram 32)



*1 Pin No. of control equipment differs depending on the model. Refer to the following table.

| Signal name | Model of control equipment | | | | |
|-------------|----------------------------|---------------|------------|---------|---------|
| | SDC45/46 | CMS CMF015 | MQV MPC | MVF | RX |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| DA | C10 | 5 | 7 | 1 | 1 |
| DB | C11 | 6 | 8 | 2 | 2 |
| SG | C12 | 10 | 9 | 7 | 3 |

- *2 Terminating resistor should be provided for an Interface converter and a control equipment which will be terminals.
- *3 Connect FG grounding to the single-sided end of a cable shield line.
- *4 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adapter as shown below.
 2-wire/4-wire: 2-wire (1Pair)
 Terminating resistor: OPEN
 ☞ Page 68 Setting the RS-232/485 signal conversion adaptor

Precautions when preparing a cable

■Cable length

The length of the RS-485 cable must be 500m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■AZBIL control equipment side connector

Use the connector compatible with the AZBIL control equipment side module.

For details, refer to the user's manual of the AZBIL control equipment.

Connecting terminating resistors

■GOT side

Set the terminating resistor by operating the terminating resistor setting switch.

For the procedure to set the terminating resistor, refer to the following.

☞ Page 62 Terminating resistors of GOT

■AZBIL control equipment side

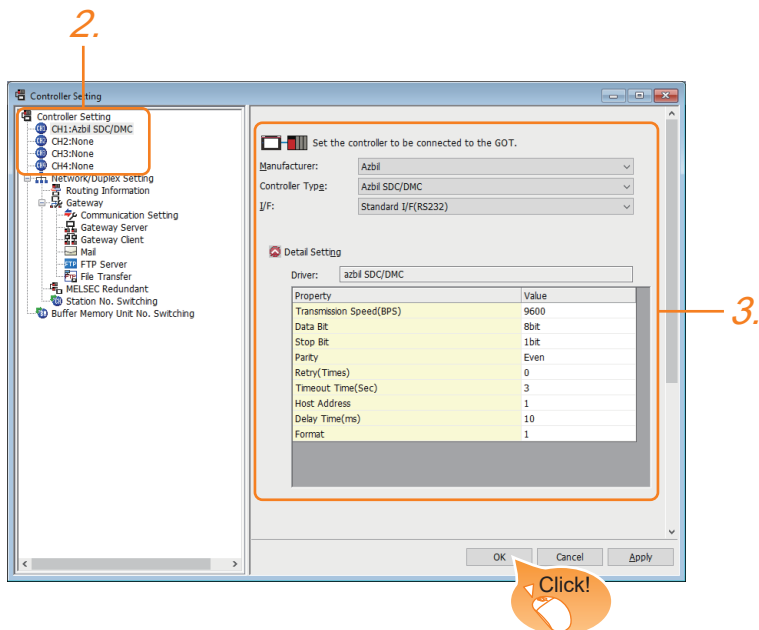
When connecting a AZBIL control equipment to the GOT, a terminating resistor must be connected.

☞ Page 191 Control Equipment Side Setting

3.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [Azbil]
 - [Controller Type]

When connecting to DMC50 or AHC2001: [Azbil DMC50]

When connecting to models other than the above: [Azbil SDC/DMC]

- [I/F]: Interface to be used
- [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 189 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Host Address | 1 |
| Delay Time(ms) | 10 |
| Format | 1 |

| Item | Description | Range |
|------------------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bit) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address ^{*3*4} | Specify the host address (station No. of the GOT to which the temperature controller is connected) in the connected network. (Default: 1) | 1 to 15 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. ^{*1} (Default: 10ms) | 0 to 300ms |
| Format ^{*2} | Select the communication format. (Default: 1) format 1: only continuous access format 2: continuous and random access | 1/2 |

*1 Do not specify "0".

*2 Format is ignored when connecting to DMC50.

*3 Host Address is ignored when connecting to DMC10 or SDC.

*4 Host Address is valid when connecting to DMC50.

Devices to be the target of Host Address setting differ depending on the system configuration.

<When connecting to the temperature controller via COM module>

Specify the station No. of the COM module.

<When connecting to the temperature controller directly>

Specify the station No. of the temperature controller.

- Format setting

The compatible format of control equipment differs depending on model.

| Model name | Compatible format |
|--|--------------------------------|
| SDC20/21, SDC30/31, SDC40A/40B/40G, CMS, CMF, CML, MQV, MPC, MVF, PBC201-VN2, RX | Format 1 only |
| DMC10, SDC15, SDC25/26, SDC35/36, SDC45/46, AUR350C, AUR450C, CMC10B | Format 1 or Format 2 |
| DMC50, AHC2001 | The format setting is invalid. |

For the continuous access and random access of the control equipment, refer to the following manual.

 User's Manual of the AZBIL control equipment

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication setting] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.




















3.5 Control Equipment Side Setting

Point

AZBIL control equipment

For details of AZBIL control equipment, refer to the following manual.

 User's Manual of the AZBIL control equipment

| Model name | | Refer to |
|---------------------|--|--|
| Control equipment | DMC10 |  Page 191 Connecting to DMC10 |
| | SDC15, SDC25/26, SDC35/36 |  Page 192 Connecting to SDC15, SDC25/26 or SDC35/36 |
| | SDC20/21 |  Page 193 Connecting to SDC20/21, SDC30/31 |
| | SDC30/31 |  Page 193 Connecting to SDC20/21, SDC30/31 |
| | SDC40A/40B/40G |  Page 192 Connecting to SDC40A/40B/40G |
| | DMC50 |  Page 195 Connecting to DMC50 |
| | SDC45/46 |  Page 195 Connecting to SDC45/46 |
| | CMS, CMF015 |  Page 196 Connecting to CMS, CMF015 |
| | CML, CMF050 |  Page 196 Connecting to CML, CMF050 |
| | MQV |  Page 196 Connecting to MQV |
| | MPC |  Page 197 Connecting to MPC |
| | PBC201-VN2 |  Page 197 Connecting to PBC201-VN2 |
| | MVF |  Page 197 Connecting to MVF |
| | AUR350C, AUR450C |  Page 199 Connecting to AUR350C, AUR450C |
| | RX |  Page 200 Connecting to RX |
| | CMC10B |  Page 200 Connecting to CMC10B |
| AHC2001 CPU |  Page 201 Connecting to AHC2001 CPU | |
| AHC2001 SCU |  Page 201 Connecting to AHC2001 SCU | |
| Interface converter | CMC10L |  Page 193 Connecting to CMC10L |

Connecting to DMC10

Communication settings

Make the communication settings by operating the Smart Loader Package (SLP-D10) of the temperature controller.

| Item | Set value |
|-------------------------------------|-------------------------|
| Transmission speed ^{*1} | 9600bps, 19200bps |
| Communication mode ^{*2} | CPL |
| Data bit | 8bits |
| Parity bit ^{*1} | Even, none |
| Stop bit | 2bits |
| Communication minimum response time | 1ms, 10ms, 100ms, 200ms |
| Station address ^{*3*4} | 0 to F |

*1 Adjust the settings with GOT settings.

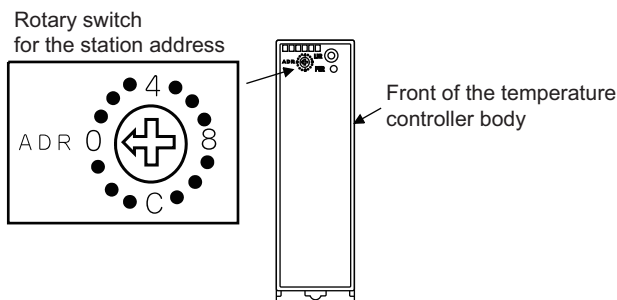
*2 Set to CPL.

*3 Do not set to "0".

*4 Select the station address without overlapping with that of other units.

Station address setting

Set the station address using the rotary switch for the station address.



Connecting to SDC40A/40B/40G

Communication settings

Make the communication settings by operating the key of the temperature controller.

| Item | Set value |
|----------------------------------|-------------|
| Transmission speed ^{*1} | 9600bps |
| Data Bit | 8bits |
| Parity bit ^{*1} | Even, none |
| Stop bit | 1bit, 2bits |
| Station address ^{*2*3} | 0 to 127 |

*1 The transmission speed setting must be consistent with that of the GOT side.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to SDC15, SDC25/26 or SDC35/36

Communication settings

Make the communication settings by operating the key or Smart Loader Package (SLP-C35) of the temperature controller.

| Item | Set value |
|-------------------------------------|-------------------|
| Transmission speed ^{*1} | 9600bps, 19200bps |
| Communication mode ^{*2} | CPL |
| Data bit ^{*1} | 7bits, 8bits |
| Parity bit ^{*1} | Odd, even, none |
| Stop bit ^{*1} | 1bit, 2bits |
| Communication minimum response time | 1 to 250ms |
| Station address ^{*3*4} | 0 to 127 |

*1 The transmission speed setting must be consistent with that of the GOT side.

*2 Set to CPL.

*3 Do not set to "0".

*4 Select the station address without overlapping with that of other units.

Connecting to SDC20/21, SDC30/31

Communication settings

Make the communication settings by operating the key of the temperature controller.

| Item | Set value |
|----------------------|-----------|
| Transmission speed*1 | 9600bps |
| Data bit | 8bits |
| Parity bit | Disable |
| Stop bit | 2bits |
| Station address*2*3 | 0 to 127 |

*1 The transmission speed setting must be consistent with that of the GOT side.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to CMC10L

Communication settings

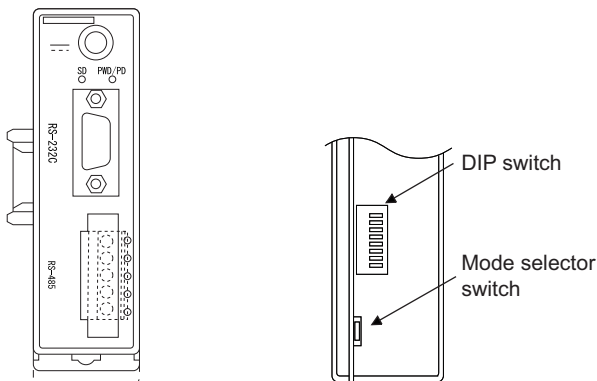
Make the communication settings by operating the DIP switch of the Interface converter

| Item | Set value |
|----------------------|-----------------------------|
| Transmission speed*1 | 9600bps, 19200bps, 38400bps |
| Frame length*2 | 9 to 15bits |

*1 The transmission speed setting must be consistent with that of the GOT side.

*2 The sum of data length, parity bit and stop bit

Settings by switch



Front view of CMC10L body Rear view of CMC10L body

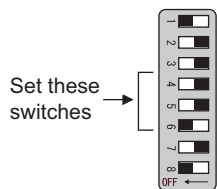
■Setting DIP switches

- Transmission speed settings



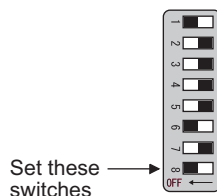
| Transmission speed (bps) | Switch No. | | |
|--------------------------|------------|-----|----|
| | 1 | 2 | 3 |
| 9600 | ON | OFF | ON |
| 19200 | OFF | ON | ON |
| 38400 | ON | ON | ON |

• Frame length settings



| Frame length | Switch No. | | |
|--------------|------------|-----|-----|
| | 4 | 5 | 6 |
| 8bits | OFF | OFF | OFF |
| 9bits | ON | OFF | OFF |
| 10bits | OFF | ON | OFF |
| 11bits | ON | ON | OFF |
| 12bits | OFF | OFF | ON |
| 13bits | ON | OFF | ON |
| 14bits | OFF | ON | ON |
| 15bits | ON | ON | ON |

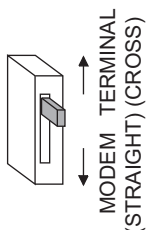
• Connecting terminating resistors



| Terminating resistor | Switch No. |
|----------------------|------------|
| | 8 |
| Enable | ON |
| Disable | OFF |

■ Mode selector switch settings

Set the switch to "TERMINAL".



Connecting to DMC50

Communication settings

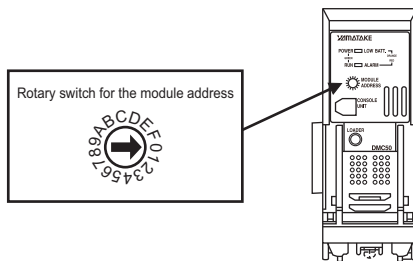
Make the communication settings by operating the Smart Loader Package (SLP-D50/SLP-H21) of the temperature controller.

| Item | Set value |
|----------------------------------|-----------------------------|
| Transmission speed ^{*1} | 9600bps, 19200bps, 38400bps |
| Communication mode | CPL |
| Data bit | 8bits (fixed) |
| Parity bit | Even (fixed) |
| Stop bit | 1bit (fixed) |
| Module address ^{*2*3*4} | 0 to F |

- *1 Adjust the settings with GOT settings.
- *2 Set the module address using the rotary switch for module address.
- *3 Do not set to "0".
- *4 Select the module address without overlapping with that of other units.

Module address setting

Set the module address using the rotary switch for module address.



Connecting to SDC45/46

Communication settings

Make the communication settings by operating the Smart Loader Package (SLP-C45) of the temperature controller.

| Item | Set value |
|---|-----------------------------|
| Transmission speed ^{*1} | 9600bps, 19200bps, 38400bps |
| Communication mode ^{*2} | CPL |
| Data bit | 7bits, 8bits |
| Parity bit ^{*1} | Odd, even, none |
| Stop bit | 1bit, 2bits |
| Communication minimum response time ^{*5} | 1 to 250ms |
| Station address ^{*3*4} | 0 to 120 |

- *1 Adjust the settings with GOT settings.
- *2 Set to CPL.
- *3 Do not set to "0".
- *4 Select the station address without overlapping with that of other units.
- *5 When using the interface converter CMC10L, set the communication minimum response time to 3ms or more.

Connecting to CMS, CMF015

Communication settings

Make the communication settings by operating the key of the control equipment.

| Item | Set value |
|-----------------------------------|---|
| Transmission speed ^{*1} | 9600bps |
| Communication condition selection | 0: 8-bit data length, Even parity, Stop bit 1 |
| | 1: 8-bit data length, Non parity, Stop bit 2 |
| Station address ^{*2*3} | 0 to 99 |

*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to CML, CMF050

Communication settings

Make the communication settings by operating the key of the control equipment.

| Item | Set value |
|---|--|
| Transmission speed ^{*1} | 9600bps |
| Communication condition selection ^{*1} | 00: 8-bit data length, Even parity, Stop bit 1 |
| | 01: 8-bit data length, Non parity, Stop bit 2 |
| Station address ^{*2*3} | 0 to 7F |

*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to MQV

Communication settings

Make the communication settings by operating the key of the control equipment.

| Item | Set value |
|---|--|
| Transmission speed ^{*1} | 9600bps, 19200bps, 38400bps |
| Communication condition selection ^{*1} | 00: 8-bit data length, Even parity, Stop bit 1 |
| | 01: 8-bit data length, Non parity, Stop bit 2 |
| Station address ^{*2*3} | 0 to 127 |

*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to MPC

Communication settings

Make the communication settings by operating the key of the control equipment.

| Item | Set value |
|---|---|
| Transmission speed ^{*1} | 9600bps, 19200bps, 38400bps |
| Communication condition selection ^{*1} | 0: 8-bit data length, Even parity, Stop bit 1 |
| | 1: 8-bit data length, Non parity, Stop bit 2 |
| Station address ^{*2*3} | 0 to 127 |

*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to PBC201-VN2

Communication settings

Make the communication settings by operating the key of the control equipment.

| Item | Set value |
|--|--|
| Communication protocol | CPL |
| Transmission speed ^{*1} | 9600bps, 19200bps, 38400bps, 115200bps |
| Communication condition selection ^{*1} (Fixed 8-bit data length) | 0:Even parity, Stop bit 1 |
| | 1:Odd parity, Stop bit 1 |
| | 2:Non parity, Stop bit 2 |
| Station address ^{*2*3} | 0 to 126 |

*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to MVF

Communication settings

Make the communication settings by operating the switch of the control equipment.

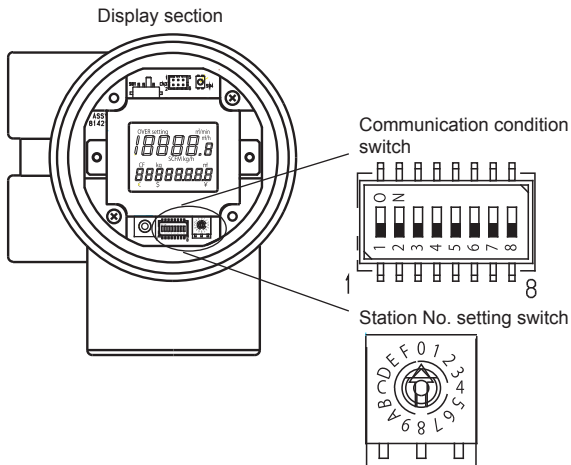
| Item | Set value |
|---|--|
| Transmission speed ^{*1} | 9600bps, 19200bps |
| Communication condition selection ^{*1} | 8-bit data length, Even parity, Stop bit 1 |
| | 8-bit data length, Non parity, Stop bit 2 |
| Station address ^{*2*3} | 0 to F |

*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

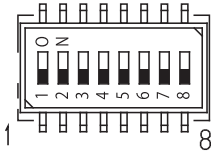
*3 Select the station address without overlapping with that of other units.

Settings by switch



■Transmission speed settings

Set the communication condition switch.



| Transmission speed (bps) | Switch No. | | |
|--------------------------|------------|-----|-----|
| | 1 | 2 | 3 |
| 9600 | ON | ON | OFF |
| 19200 | ON | OFF | OFF |

■Communication condition selection

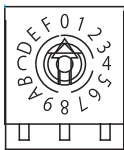
Set the communication condition switch.

| Communication condition | Switch No. |
|--|------------|
| | 4 |
| 8-bit data length, Even parity, Stop bit 1 | OFF |
| 8-bit data length, Non parity, Stop bit 2 | ON |

■Station address setting

Set the station address switch.

Station No. setting switch



Connecting to AUR350C, AUR450C

Communication settings

Make the communication settings by operating the Smart Loader Package (SLP-A35, SLP-A45) of the control equipment.

| Item | Set value |
|-------------------------------------|--|
| Transmission speed*1 | 9600bps, 19200bps |
| Communication condition selection*1 | 8-bit data length, Even parity, Stop bit 1 |
| | 8-bit data length, Non parity, Stop bit 2 |
| Station address*2*3 | 0 to F |

*1 Adjust the settings with GOT settings.

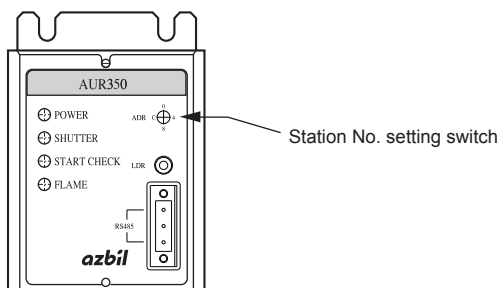
*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

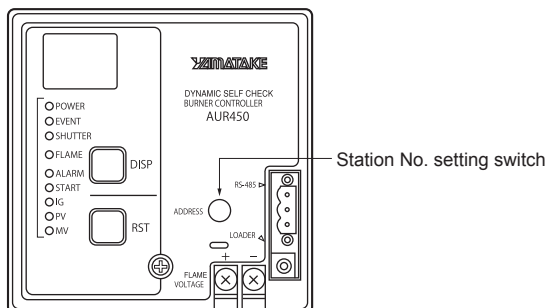
Station address setting

Set the station address switch.

■For AUR350C



■For AUR450C



Connecting to RX

Communication settings

Make the communication settings by operating the Smart Loader Package (SLP-RX) of the control equipment.

| Item | Set value |
|-------------------------------------|--|
| Transmission speed*1 | 9600bps, 19200bps, 38400bps |
| Communication condition selection*1 | Even parity stop 1 (8-bit data length, Even parity, Stop bit 1) |
| | Even parity stop 2 (8-bit data length, Even parity, Stop bit 2) |
| | Odd parity stop 1 (8-bit data length, Odd parity, Stop bit 1) |
| | Odd parity stop 2 (8-bit data length, Odd parity, Stop bit 2) |
| Station address*2*3 | 1 to 32 |

*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Connecting to CMC10B

Communication settings

Make the communication settings by operating the Smart Loader Package (SLP-CM1) of the control equipment.

| Item | Set value |
|------------------------|--|
| Transmission speed*1 | 9600bps, 19200bps |
| Communication format*1 | 0:8-bit data length, Even parity, Stop bit 1 |
| | 1:8-bit data length, Non parity, Stop bit 2 |
| Station address*2*3 | 0 to 99 |

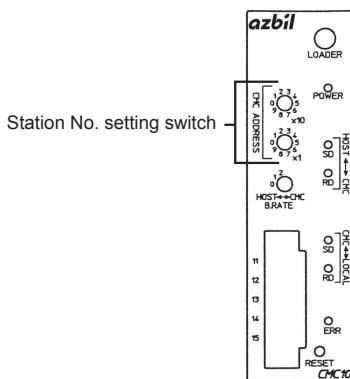
*1 Adjust the settings with GOT settings.

*2 Do not set to "0".

*3 Select the station address without overlapping with that of other units.

Station address setting

Set the station address switch.



Connecting to AHC2001 CPU

Communication settings

Make the communication settings by operating the Smart Loader Package (SLP-D50/SLP-H21) of the temperature controller.

| Item | Set value |
|----------------------------------|---------------------------------------|
| Transmission speed ^{*1} | 9600bps, 19200bps, 38400bps, 57600bps |
| Communication mode ^{*2} | 0: MODBUS 1: CPL |
| Data bit | 8bits (fixed) |
| Parity bit | Even (fixed) |
| Stop bit | 1bit (fixed) |
| Station address ^{*3} | 1 to 15 ^{*4} |

*1 Adjust the settings with GOT settings.

*2 Set this item to 1: CPL.

*3 Select the station address without overlapping with that of other units.

*4 The station address for AHC2001 ranges from 1 to 127. However, use station address from 1 to 15, which are the range for DMC50.

Connecting to AHC2001 SCU

Communication settings

Make the communication settings by operating the Smart Loader Package (SLP-D50/SLP-H21) of the temperature controller.

| Item | Set value |
|---------------------------------------|--------------------------------|
| Transmission speed ^{*1} | 9600bps, 19200bps, 38400bps |
| Data bit ^{*1} | 7bits, 8bits |
| Parity bit ^{*1} | 0: None, 1:Even, 2: Odd |
| Stop bit ^{*1} | 1bit, 2bits |
| Half duplex/Full duplex ^{*2} | 0: Half duplex, 1: Full duplex |
| Space sending | 0 (fixed) |
| Protocol setup ^{*3} | 1 to 30 |

*1 Adjust the settings with GOT settings.

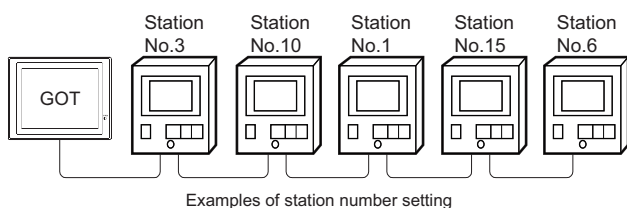
*2 Set this item to 0: Half duplex.

*3 Set this item to 2: CPL.

Station number setting

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.



Examples of station number setting

Direct specification

When setting the device, specify the station number of the control equipment of which data is to be changed.

| Model name | Specification range |
|--|---------------------|
| SDC40A/40B/40G, SDC15, SDC25/26, SDC35/36, SDC20/21, SDC30/31, CML, CMF050, MQV, MPC | 1 to 127 |
| PBC201-VN2 | 1 to 126 |
| SDC45/46 | 1 to 120 |
| CMS, CMF015, CMC10B | 1 to 99 |
| RX | 1 to 32 |
| DMC10, DMC50, MVF, AUR350C, AUR450C, AHC2001 ^{*1} | 1 to 15 |

*1 The station number for AHC2001 ranges from 1 to 127. However, use station numbers from 1 to 15, which are the range for DMC50.

Indirect specification

When setting the device, indirectly specify the station number of the inverter of which data is to be changed using the 16-bit GOT internal data register (GD10 to GD25).

When specifying the station No. from the following table on GT Designer3, the value of GD10 to GD25 compatible to the station No. specification will be the station No. of the control equipment.

| Specification station No. | | Compatible device | Setting range |
|---------------------------|---------------------|-------------------|--|
| DMC50 AHC2001 | Other than DMC50 | | |
| 100 | 200 | GD10 | 1 to 127: For SDC40A/40B/40G, SDC15, SDC25/26, SDC35/36, SDC20/21, SDC30/31, CML, CMF050, MQV, MPC 1 to 126: PBC201-VN2 1 to 120: SDC45/46 1 to 99: CMS, CMF015, CMC10B 1 to 32: RX 1 to 15: DMC10, DMC50, MVF, AUR350C, AUR450C, AHC2001 ^{*1} For the setting other than the above, error (dedicated device is out of range) will occur. |
| 101 | 201 | GD11 | |
| 102 | 202 | GD12 | |
| 103 | 203 | GD13 | |
| 104 | 204 | GD14 | |
| 105 | 205 | GD15 | |
| 106 | 206 | GD16 | |
| 107 | 207 | GD17 | |
| 108 | 208 | GD18 | |
| 109 | 209 | GD19 | |
| 110 | 210 | GD20 | |
| 111 | 211 | GD21 | |
| 112 | 212 | GD22 | |
| 113 | 213 | GD23 | |
| 114 | 214 | GD24 | |
| 115 | 215 | GD25 | |

*1 The station number for AHC2001 ranges from 1 to 127. However, use station numbers from 1 to 15, which are the range for DMC50.

3.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 629 AZBIL equipment ([Azbil SDC/DMC])

☞ Page 631 AZBIL equipment ([Azbil DMC50])

3.7 Precautions

Station number setting of the temperature controller system

- When connecting to DMC10 or SDC

Make sure to establish temperature controller system with No.1 station.

- When connecting to DMC50 or AHC2001

A COM module or temperature controller with the station number set with the host address must be included.

☞ Page 189 Communication detail settings

GOT clock control

Since the control equipment does not have a clock function, the settings of "time adjusting" or "time broad cast" by GOT clock control will be disabled.

Disconnecting some of multiple connected equipment

The GOT can disconnect some of multiple connected equipment by setting GOT internal device. For example, the faulty station where a communication timeout error occurs can be disconnected from connected equipment.

For details of GOT internal device setting, refer to the following manual.

☞ GT Designer3 (GOT2000) Screen Design Manual

When DMC50/AHC2001 and DMC10/SDC are mixed

GOT does not support connections with DMC50/AHC2001 and DMC10/SDC mixed.

Station number range for AHC2001

The station number for AHC2001 ranges from 1 to 127. However, use station numbers from 1 to 15, which are the range for DMC50.

Device range for AHC2001

The GOT only supports some devices for the AHC2001.

Use the devices within the device range for the DMC50.

4 OMRON PLC

- Page 205 Connectable Model List
- Page 208 Serial Connection
- Page 258 Ethernet Connection
- Page 271 Settable Device Range

4.1 Connectable Model List

The following table shows the connectable models.

| Series | Model name | Clock | Communication Type | Connectable GOT | Refer to |
|----------------|----------------------------|-------------------|--------------------|-----------------|--|
| SYSMAC CPM | CPM1 | x | RS-232 | | ☞ Page 208 Connecting to CPM1, CPM1A, CPM2A, CPM2C, or CQM1 |
| | CPM1A | x | | | |
| | CPM2A | o | | | |
| | CPM2C | o ^{*3} | | | |
| SYSMAC CQM1 | CQM1 ^{*1} | o ^{*4} | RS-232 | | ☞ Page 208 Connecting to CPM1, CPM1A, CPM2A, CPM2C, or CQM1 |
| SYSMAC CQM1H | CQM1H | o ^{*4*5} | RS-232 RS-422 | | ☞ Page 211 Connecting to CQM1H |
| SYSMAC CJ1 | CJ1H | o | RS-232 | | ☞ Page 214 Connecting to CJ1H, CJ1G, CJ1M, CJ2H, or CJ2M |
| | CJ1G | | RS-422 | | |
| | CJ1M | | | | |
| SYSMAC CJ2 | CJ2H | o | RS-232 | | ☞ Page 214 Connecting to CJ1H, CJ1G, CJ1M, CJ2H, or CJ2M |
| | CJ2M ^{*9} | | RS-422 | | |
| SYSMAC CP1 | CP1H | o | RS-232 | | ☞ Page 219 Connecting to CP1H, CP1L, CP1E, CP2E-E, CP2E-S, or CP2E-N |
| | CP1L | | RS-422 | | |
| | CP1E(N type) ^{*8} | | | | |
| SYSMAC C200HS | C200HS | o | RS-232 | | ☞ Page 224 Connecting to C200HS, C200H, C200HX, C200HG, or C200HE |
| SYSMAC C200H | C200H | o ^{*6} | RS-422 | | |
| SYSMAC α | C200HX | o | RS-232 | | ☞ Page 224 Connecting to C200HS, C200H, C200HX, C200HG, or C200HE |
| | C200HG | | RS-422 | | |
| | C200HE ^{*2} | | o ^{*7} | | |
| SYSMAC CS1 | CS1H | o | RS-232 | | ☞ Page 227 Connecting to CS1H, CS1G, or CS1D |
| | CS1G | | RS-422 | | |
| | CS1D | | | | |
| SYSMAC CP2 | CP2E-E | o | RS-232 | | ☞ Page 219 Connecting to CP1H, CP1L, CP1E, CP2E-E, CP2E-S, or CP2E-N |
| | CP2E-S | | | | |
| | CP2E-N | o | RS-232 RS-422 | | |
| SYSMAC C1000H | C1000H | x | RS-232 | | ☞ Page 230 Connecting to C1000H, C2000H |
| SYSMAC C2000H | C2000H | | RS-422 | | |
| SYSMAC CVM1/CV | CV500 ^{*10} | o | RS-232 | | ☞ Page 231 Connecting to CV500, CV1000, CV2000, or CVM1 |
| | CV1000 ^{*10} | | RS-422 | | |
| | CV2000 ^{*10} | | | | |
| | CVM1 ^{*10} | o ^{*3} | | | |

*1 The CQM1-CPU11 is unable to communicate with GOT since the CQM1-CPU11 has no RS-232C interface.

*2 The C200HE-CPU11 does not support communication board.
Use a host Link unit.

*3 Some models do not have a clock function.

*4 The memory cassette equipped with a clock is required.

*5 The EM device of the CQM-CPU61 cannot be monitored.

*6 To use the C200H-CPU21/CPU22/CPU23, the memory cassette equipped with a clock is required.
The C200H-CPU01/CPU02/CPU03 does not support the clock function.

- *7 The C200HE-CPU11 does not support the clock function.
- *8 Only the direct CPU connection (serial) is available for CP1E (N type) CPU module with 20 or less I/O points.
- *9 The direct CPU connection (serial) is available for CJ2M-CPU1□ only.
- *10 Use the CPU module Ver. V1 or later.

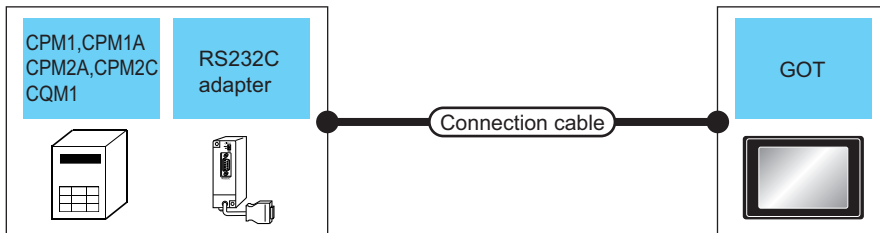
| Series | Model name | Clock | Communication Type | Connectable GOT | Refer to |
|------------|---------------|-------|--------------------|-----------------|--|
| SYSMAC CJ1 | CJ1H | ○ | Ethernet | *1 | Page 258 Connecting to SYSMAC CJ1, CJ2, CS1, or CP2 series |
| | CJ1G | | | | |
| | CJ1M | | | | |
| SYSMAC CJ2 | CJ2H | ○ | Ethernet | *1 | Page 258 Connecting to SYSMAC CJ1, CJ2, CS1, or CP2 series |
| | CJ2M | | | | |
| SYSMAC CS1 | CS1H | ○ | Ethernet | *1 | Page 258 Connecting to SYSMAC CJ1, CJ2, CS1, or CP2 series |
| | CS1G | | | | |
| | CS1D | | | | |
| SYSMAC CP2 | CP2E-N | ○ | Ethernet | *1 | Page 258 Connecting to SYSMAC CJ1, CJ2, CS1, or CP2 series |
| NJ | NJ501-1500 | ○ *2 | Ethernet | *1 | Page 260 Connecting to NJ or NX series |
| | NJ501-1400 | | | | |
| | NJ501-1300 | | | | |
| | NJ501-1520 | | | | |
| | NJ501-1420 | | | | |
| | NJ501-1320 | | | | |
| | NJ501-1340 | | | | |
| | NJ301-1200 | | | | |
| | NJ301-1100 | | | | |
| | NJ101-1000 | | | | |
| NJ101-9000 | | | | | |
| NJ101-1020 | | | | | |
| NJ101-9020 | | | | | |
| NX | NX1P2-1140DT | ○ *2 | Ethernet | *1 | Page 260 Connecting to NJ or NX series |
| | NX1P2-1140DT1 | | | | |
| | NX1P2-1040DT | | | | |
| | NX1P2-1040DT1 | | | | |
| | NX1P2-9024DT | | | | |
| | NX1P2-9024DT1 | | | | |
| | NX701-1700 | | | | |
| | NX701-1600 | | | | |
| | NX102-1200 | | | | |
| | NX102-1100 | | | | |
| NX102-1000 | | | | | |
| NX102-9000 | | | | | |

*1 Not compatible with the redundant Ethernet.
 *2 The time setting function of the GOT is supported.















4.2 Serial Connection

Connecting to CPM1, CPM1A, CPM2A, CPM2C, or CQM1

When connecting to PLC or RS-232C



| PLC | | Communication Type | Connection cable | | GOT | | Number of connectable equipment |
|---------------------------------|-------------------|--------------------|---|---------------|------------------------------|-------|---------------------------------|
| Model name | RS-232C adapter*1 | | Cable model | Max. distance | Option device*3 | Model | |
| CPM2A CQM1 | - | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | -(Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | | | RS-232 connection diagram 4) | 15m | |
| CPM1 CPM1A CPM2A CPM2C | CPM1-CIF01 | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | -(Built into GOT) | | 1 GOT for 1 RS-232C adapter |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | | | RS-232 connection diagram 4) | 15m | |

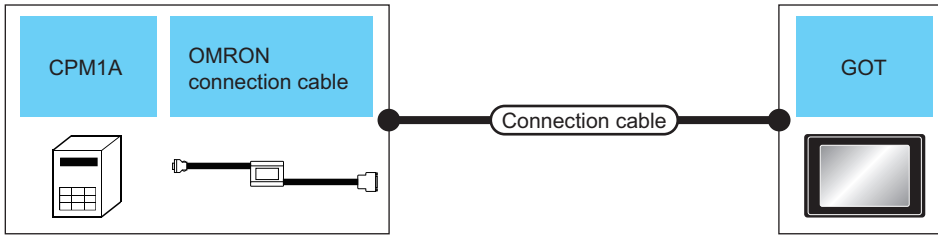
| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|------------|-------------------------------|--------------------|---|---------------|-------------------------------|--|---------------------------------|
| Model name | RS-232C adapter ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| CPM2C | CPM2C-CIF01-V1 | RS-232 | GT09-C30R20101-9P(3m) or  RS-232 connection diagram 1) | 15m | -(Built into GOT) |       | 1 GOT for 1 RS-232C adapter |
| | | | | | GT15-RS2-9P |   | |
| | | | | | GT10-C02H-6PT9P ^{*2} |   | |
| | | |  RS-232 connection diagram 4) | 15m | -(Built into GOT) |   | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to OMRON connection cable



| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|------------|--------------------------|--------------------|---|---------------|--------------------|-------|---------------------------------|
| Model name | OMRON connection cable*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CPM1A | CQM1-CIF01 | RS-232 | GT09-C30R20102-25S(3m) or (User preparing) RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | GT15-RS2-9P | | | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | (User preparing) RS-232 connection diagram 5) | 15m | - (Built into GOT) | | |
| CPM2C | CPM2C-CN111 | RS-232 | GT09-C30R20101-9P(3m) or (User preparing) RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | GT15-RS2-9P | | | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | (User preparing) RS-232 connection diagram 4) | 15m | - (Built into GOT) | | |

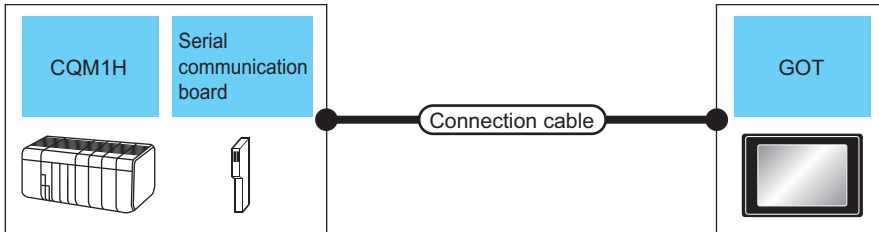
*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.







*3 GT25-W, GT2505-V does not support the option device.

Connecting to CQM1H

When connecting to PLC or serial communication board



| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|-------------|------------------------------|--------------------|--|---------------|--------------------|-------------------|---------------------------------|--|
| Model name | Serial communication board*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | | |
| CQM 1H | - | RS-232 | GT09-C30R20101-9P(3m) or (User presets)RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | | | (User presets)RS-232 connection diagram 4) | 15m | - (Built into GOT) | | | |
| CQM1H-SCB41 | RS-232 | RS-232 | GT09-C30R20101-9P(3m) or (User presets)RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | | | (User presets)RS-232 connection diagram 4) | 15m | - (Built into GOT) | | | |

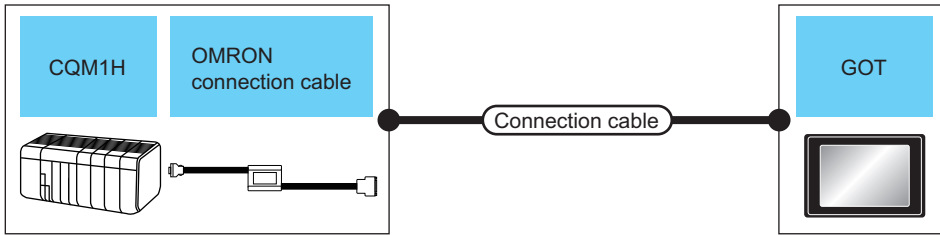
| PLC | | | Connection cable | | GOT | | Number of connectable equipment | |
|------------|------------------------------|--------------------|--|---------------|--------------------|---|--|---|
| Model name | Serial communication board*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | | |
| CQM 1H | CQM1H-SCB41 | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or  RS-422 connection diagram 3) | 200m | - (Built into GOT) |  | 1 GOT for 1 serial communication board | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |  |
| | | |  RS-422 connection diagram 7) | 200m | - (Built into GOT) |  | | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to OMRON connection cable



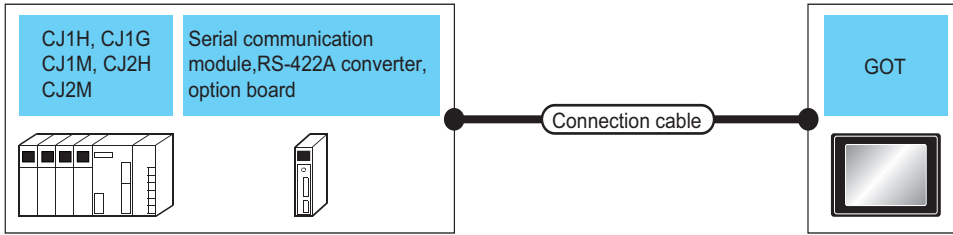
| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|------------|--------------------------|--------------------|--|---------------|--------------------|-------|---------------------------------|
| Model name | OMRON connection cable*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CQM 1H | CQM1-CIF02 | RS-232 | GT09-C30R20101-9P(3m) or (User preparing) RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | (User preparing) RS-232 connection diagram 4) | 15m | - (Built into GOT) | | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.































*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.




































*3 GT25-W, GT2505-V does not support the option device.


























































Connecting to CJ1H, CJ1G, CJ1M, CJ2H, or CJ2M













































| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|--------------------------------|--|--------------------|---|---------------|-----------------------------|--------------|---------------------------------|
| Model name | Serial communication module ^{*1} , RS-422A converter ^{*1} , option board ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| CJ1H CJ1G CJ1M CJ2H | - | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | - | | 1 GOT for 1 PLC |
| | | | | | | | |
| | | | GT10-C02H-6PT9P ^{*2} | | | | |
| | | | RS-232 connection diagram 4) | 15m | -(Built into GOT) | | |
| CJ1W-SCU21-V1 CJ1W-SCU41-V1 | - | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | - | | 1 GOT for 1 PLC |
| | | | | | | | |
| | | | GT10-C02H-6PT9P ^{*2} | | | | |
| | | | RS-232 connection diagram 4) | 15m | -(Built into GOT) | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|------------------------------|--|--|--|--------------------|---|--|--|
| Model name | Serial communication module*1, RS-422A converter*1, option board*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CJ1H CJ1G CJ1M CJ2H | CJ1W-SCU31-V1 CJ1W-SCU41-V1 | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or  RS-422 connection diagram 3) | 200m | - (Built into GOT) |     | 1 GOT for 1 PLC |
| | | | | | | GT15-RS4-9S  | |
| | | | | | | GT10-C02H-9SC  | |
| | | |  RS-422 connection diagram 7) | 200m | - (Built into GOT) |   | |
| CJ1W-CIF11 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) or  RS-422 connection diagram 4) | 50m | - (Built into GOT) |     | 1 GOT for 1 RS-422A converter | |
| | | | | | GT15-RS4-9S  | | |
| | | | | | GT10-C02H-9SC  | | |
| | | |  RS-422 connection diagram 8) | 50m | - (Built into GOT) | |   |
| CJ1H CJ1G CJ1M | CJ1W-SCU21 CJ1W-SCU41 | RS-232 | GT09-C30R20101-9P(3m) or  RS-232 connection diagram 1) | 15m | - (Built into GOT) |     | 1 GOT for each port of a serial communication module |
| | | | | | | GT15-RS2-9P  | |
| | | | | | | GT10-C02H-6PT9P*2  | |
| | | |  RS-232 connection diagram 4) | 15m | - (Built into GOT) |   | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|----------------------|--|--------------------|--|---------------|--------------------|--|--|
| Model name | Serial communication module*1, RS-422A converter*1, option board*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CJ1H CJ1G CJ1M | CJ1W-SCU41 | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or  RS-422 connection diagram 3) | 200m | - (Built into GOT) |     | 1 GOT for each port of a serial communication module |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |   | |
| | | |  RS-422 connection diagram 7) | 200m | - (Built into GOT) |    | |
| CJ2M-CPU1□ | - | RS-232 | GT09-C30R20101-9P(3m) or  RS-232 connection diagram 1) | 15m | - (Built into GOT) |     | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P |  | |
| | | | | | GT10-C02H-6PT9P*2 |   | |
| | | |  RS-232 connection diagram 4) | 15m | - (Built into GOT) |   | |
| | CJ1W-CIF11 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) or  RS-422 connection diagram 4) | 50m | - (Built into GOT) |     | 1 GOT for 1 RS-422A converter |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |   | |
| | | |  RS-422 connection diagram 8) | 50m | - (Built into GOT) |    | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|--------------------------|--|--------------------|--|---------------|--------------------|--|--|
| Model name | Serial communication module*1, RS-422A converter*1, option board*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CJ2M-CPU1□ CJ2M-CPU3□ | CJ1W-SCU21-V1 CJ1W-SCU41-V1 | RS-232 | GT09-C30R20101-9P(3m) or  RS-232 connection diagram 1) | 15m | - (Built into GOT) |        | 1 GOT for each port of a serial communication module |
| | | | | | GT15-RS2-9P |   | |
| | | | | | GT10-C02H-6PT9P*2 |     | |
| | | |  RS-232 connection diagram 4) | 15m | - (Built into GOT) |     | |
| CJ2M-CPU1□ CJ2M-CPU3□ | CJ1W-SCU31-V1 CJ1W-SCU41-V1 | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or  RS-422 connection diagram 3) | 200m | - (Built into GOT) |        | 1 GOT for each port of a serial communication module |
| | | | | | GT15-RS4-9S |   | |
| | | | | | GT10-C02H-9SC |     | |
| | | |  RS-422 connection diagram 7) | 200m | - (Built into GOT) |     | |
| CJ2M-CPU3□ | CP1W-CIF01 | RS-232 | GT09-C30R20101-9P(3m) or  RS-232 connection diagram 1) | 15m | - (Built into GOT) |        | 1 GOT for 1 RS-232C option board |
| | | | | | GT15-RS2-9P |   | |
| | | | | | GT10-C02H-6PT9P*2 |     | |
| | | |  RS-232 connection diagram 4) | 15m | - (Built into GOT) |     | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|------------|--|--------------------|--|---------------|--------------------|--|--|
| Model name | Serial communication module*1, RS-422A converter*1, option board*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CJ2M-CPU3□ | CP1W-CIF11 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) or  RS-422 connection diagram 4) | 50m | - (Built into GOT) |        | 1 GOT for 1 RS-422A/ 485 option board |
| | | | | | GT15-RS4-9S |   | |
| | | | | | GT10-C02H-9SC |     | |
| | | |  RS-422 connection diagram 8) | 50m | - (Built into GOT) |       | |
| CJ2M-CPU3□ | CP1W-CIF12 CP1W-CIF12-V1 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) or  RS-422 connection diagram 4) | 200m | - (Built into GOT) |        | 1 GOT for 1 RS-422A/ 485 option board |
| | | | | | GT15-RS4-9S |   | |
| | | | | | GT10-C02H-9SC |     | |
| | | |  RS-422 connection diagram 8) | 200m | - (Built into GOT) |       | |

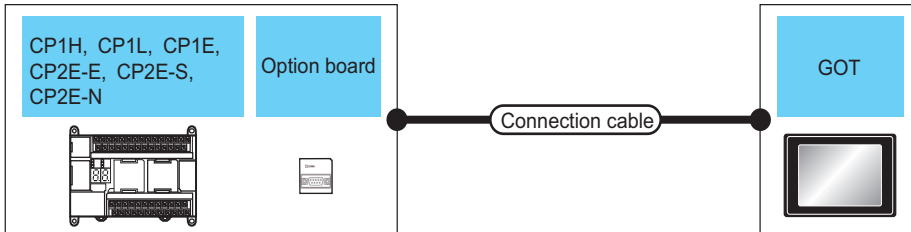
*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.




































*3 GT25-W, GT2505-V does not support the option device.

Connecting to CP1H, CP1L, CP1E, CP2E-E, CP2E-S, or CP2E-N

When connecting a PLC or option board



| PLC | | Communication Type | Connection cable | | GOT | | Number of connectable equipment |
|------------------|----------------|--------------------|--|---------------|--------------------|-------|---------------------------------|
| Model name | Option board*1 | | Cable model | Max. distance | Option device*3 | Model | |
| CP1E | - | RS-232 | GT09-C30R20101-9P(3m) or (User preparing) RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | (User preparing) RS-232 connection diagram 4) | 15m | - (Built into GOT) | | |
| CP2E-E CP2E-S | - | RS-232 | (User preparing) RS-232 connection diagram 7) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | (User preparing) RS-232 connection diagram 8) | 15m | - (Built into GOT) | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment | | |
|-----------------------------|----------------------------|--|---|---------------|-----------------------------|--|--|----------------------------------|--|
| Model name | Option board ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | | |
| CP1H CP1L CP1E | CP1W-CIF01 | RS-232 | GT09-C30R20101-9P(3m) or  RS-232 connection diagram 1) | 15m | - | (Built into GOT) |     | 1 GOT for 1 RS-232C option board | |
| | | | | | | | GT15-RS2-9P | |  |
| | | | | | | | GT10-C02H-6PT9P ^{*2} | |   |
| | | |  RS-232 connection diagram 4) | 15m | - (Built into GOT) |   | | | |
| CP1W-CIF11 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) or  RS-422 connection diagram 4) | 50m | - | (Built into GOT) |     | 1 GOT for 1 RS-422A/485 option board | | |
| | | | | | | | | GT15-RS4-9S |  |
| | | | | | | | | GT10-C02H-9SC |   |
| | | |  RS-422 connection diagram 8) | 50m | - (Built into GOT) |    | | | |
| CP1W-CIF12 CP1W-CIF12-V1 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) or  RS-422 connection diagram 4) | 50m | - | (Built into GOT) |     | 1 GOT for 1 RS-422A/485 option board | | |
| | | | | | | | | GT15-RS4-9S |  |
| | | | | | | | | GT10-C02H-9SC |   |
| | | |  RS-422 connection diagram 8) | 50m | - (Built into GOT) |    | | | |

| PLC | | Connection cable | | GOT | | Number of connectable equipment | | |
|------------|----------------------------|--------------------|--|---------------|-----------------------------|---------------------------------|--|--|
| Model name | Option board ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | | Model | |
| CP2E-N | CP1W-CIF01 | RS-232 | GT09-C30R20101-9P(3m) or (User preparing) RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 RS-232C option board | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | (User preparing) RS-232 connection diagram 4) | 15m | - (Built into GOT) | | | |
| CP2W-CIFD1 | RS-232 | RS-232 | (User preparing) RS-232 connection diagram 9) | 15m | - (Built into GOT) | | 1 GOT for 1 RS-232C&RS-232C option board | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | (User preparing) RS-232 connection diagram 10) | 15m | - (Built into GOT) | | | |
| CP2W-CIFD2 | RS-232 | RS-232 | (User preparing) RS-232 connection diagram 9) | 15m | - (Built into GOT) | | 1 GOT for 1 RS-232C&RS-485 option board | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | (User preparing) RS-232 connection diagram 10) | 15m | - (Built into GOT) | | | |

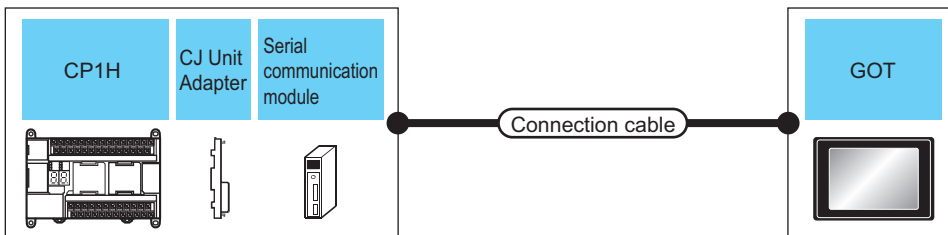
| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|------------|----------------------------|--------------------|--|---------------|-----------------------------|-------|--------------------------------------|
| Model name | Option board ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| CP2E-N | CP1W-CIF11 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) | 50m | - (Built into GOT) | | 1 GOT for 1 RS-422A/485 option board |
| | | | or RS-422 connection diagram 4) | | GT15-RS4-9S | | |
| | | | | | GT10-C02H-9SC | | |
| | | | RS-422 connection diagram 8) | 50m | - (Built into GOT) | | |
| | CP1W-CIF12-V1 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) | 50m | - (Built into GOT) | | 1 GOT for 1 RS-422A/485 option board |
| | | | or RS-422 connection diagram 4) | | GT15-RS4-9S | | |
| | | | | | GT10-C02H-9SC | | |
| | | | RS-422 connection diagram 8) | 50m | - (Built into GOT) | | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to serial communication module



| PLC | | | | Connection cable | | GOT | | Number of connectable equipment | |
|------------|-------------------------------|--|--------------------|---|---------------|-----------------------------|-------------------------------|--|--|
| Model name | CJ unit adapter ^{*1} | Serial communication module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | |
| CP1H | CP1W-EXT01 | CJ1W-SCU21 CJ1W-SCU41 CJ1W-SCU21-V1 CJ1W-SCU41-V1 | RS-232 | GT09-C30R20101-9P(3m) or (User preparing) RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for each port of a serial communication module | |
| | | | | | | | GT15-RS2-9P | | |
| | | | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | CJ1W-SCU41 CJ1W-SCU31-V1 CJ1W-SCU41-V1 | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or (User preparing) RS-422 connection diagram 3) | 200m | - (Built into GOT) | | | |
| | | | | | | | GT15-RS4-9S | | |
| | | | | | | | GT10-C02H-9SC | | |
| | | | | (User preparing) RS-422 connection diagram 7) | 200m | - (Built into GOT) | | | |

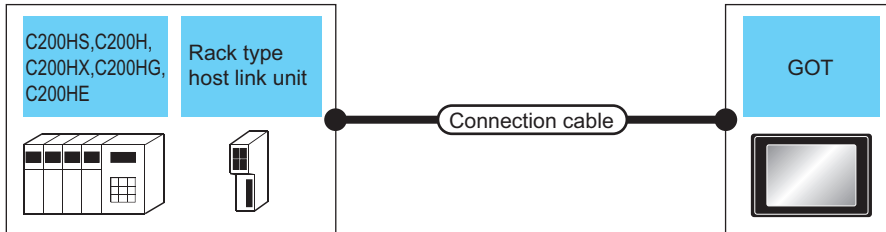
*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.












*3 GT25-W, GT2505-V does not support the option device.

Connecting to C200HS, C200H, C200HX, C200HG, or C200HE

When connecting to PLC or rack type host link unit



| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|---|--|--------------------|--|---------------|-----------------------------|------------------|---------------------------------|--------------------------------------|
| Model name | Rack type host link unit ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | |
| C200HX C200HG C200HE | - | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | - | (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | | | | |
| | | | GT10-C02H-6PT9P ^{*2} | | | | | |
| | | | RS-232 connection diagram 4) | 15m | -(Built into GOT) | | | |
| C200HS C200H C200HX C200HG C200HE | C200H-LK201-V1 | RS-232 | GT09-C30R20103-25P(3m) or RS-232 connection diagram 3) | 15m | - | (Built into GOT) | | 1 GOT for 1 rack type host link unit |
| | | | | | | | | |
| | | | GT10-C02H-6PT9P ^{*2} | | | | | |
| | | | RS-232 connection diagram 6) | 15m | -(Built into GOT) | | | |

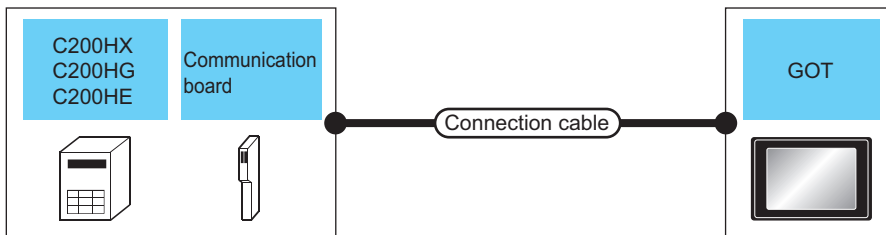
| PLC | | | Connection cable | | GOT | | Number of connectable equipment | |
|---|--|--------------------|---|---------------|-----------------------------|---|--------------------------------------|---|
| Model name | Rack type host link unit ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | |
| C200HS C200H C200HX C200HG C200HE | C200H-LK202-V1 | RS-422 | GT09-C30R40102-9P(3m) GT09-C100R40102-9P(10m) GT09-C200R40102-9P(20m) GT09-C300R40102-9P(30m) or  RS-422 connection diagram 2) | 200m | - (Built into GOT) |     | 1 GOT for 1 rack type host link unit | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |   |
| | | |  RS-422 connection diagram 6) | 200m | - (Built into GOT) |   | | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to a communication board



| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|--|---|--------------------|--|---------------|-------------------------------|-------|--|
| Model name | Communication board ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*4} | Model | |
| C200HX C200HG C200HE ^{*2} | C200HW-COM02(-V1) C200HW-COM05(-V1) C200HW-COM06(-V1) | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for each port of a communication board |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*3} | | |
| | RS-232 connection diagram 4) | 15m | - (Built into GOT) | | | | |
| | C200HW-COM03(-V1) C200HW-COM06(-V1) | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or RS-422 connection diagram 3) | 200m | - (Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |
| GT10-C02H-9SC | | | | | | | |
| RS-422 connection diagram 7) | 200m | - (Built into GOT) | | | | | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

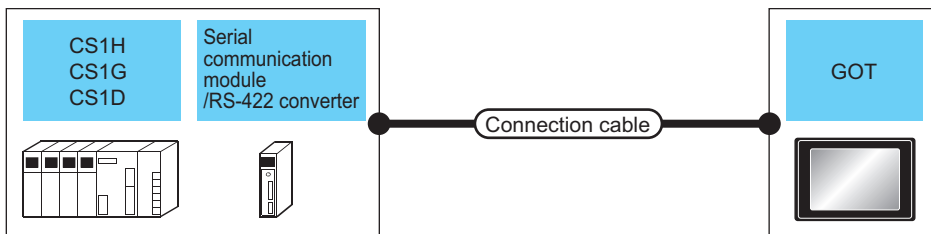
*2 The communication board cannot be mounted to the C2000HE-CPU11.
Use a host Link unit.

*3 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.




















*4 GT25-W, GT2505-V does not support the option device.

Connecting to CS1H, CS1G, or CS1D

When connecting to a PLC or a serial communication module



| PLC | | Communication Type | Connection cable | | GOT | | Number of connectable equipment |
|-----------------------------|--|--------------------|--|---------------|-------------------|-------|---|
| Model name | Serial communication module*1 /RS-422A converter | | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CS1H CS1G CS1D | - | RS-232 | GT09-C30R20101-9P(3m) or (User preparing) RS-232 connection diagram 1) | 15m | -(Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | (User preparing) RS-232 connection diagram 4) | 15m | -(Built into GOT) | | |
| CS1W-SCU21 CS1W-SCU21-V1 | CS1W-SCU21 CS1W-SCU21-V1 | RS-232 | GT09-C30R20101-9P(3m) or (User preparing) RS-232 connection diagram 1) | 15m | -(Built into GOT) | | 1 GOT for 1 serial communication module |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | (User preparing) RS-232 connection diagram 4) | 15m | -(Built into GOT) | | |

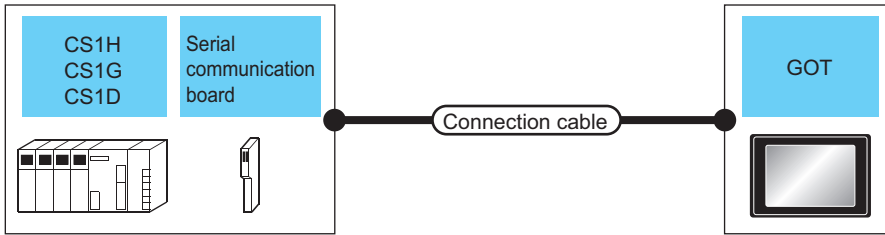
| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|----------------------|---|--------------------|--|---------------|-----------------------------|--|---------------------------------|
| Model name | Serial communication module ^{*1} /RS-422A converter | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| CS1H CS1G CS1D | CJ1W-CIF11 | RS-422 | GT09-C30R40103-5T(3m) GT09-C100R40103-5T(10m) GT09-C200R40103-5T(20m) GT09-C300R40103-5T(30m) or  RS-422 connection diagram 4) | 50m | -(Built into GOT) |        | 1 GOT for 1 RS-422A converter |
| | | | GT15-RS4-9S | | |   | |
| | | | GT10-C02H-9SC | | |     | |
| | | |  RS-422 connection diagram 8) | 50m | -(Built into GOT) |     | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to a serial communication board



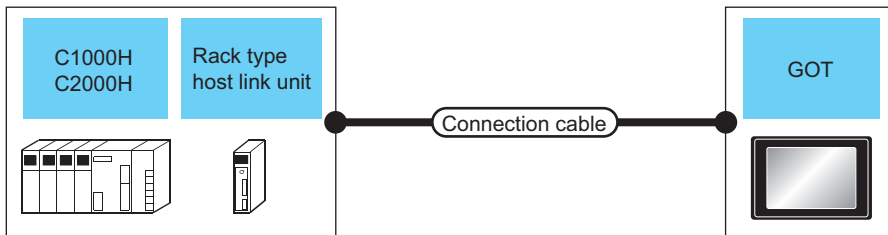
| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|-----------------------------|--|--|---|--------------------|--------------------|---|---|
| Model name | Serial communication board*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| CS1H CS1G CS1D | CS1W-SCB21 CS1W-SCB41 CS1W-SCB21-V1 CS1W-SCB41-V1 | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for each port of a serial communication board |
| | | | | | GT15-RS2-9P | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | RS-232 connection diagram 4) | 15m | - (Built into GOT) | | |
| CS1W-SCB41 CS1W-SCB41-V1 | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or RS-422 connection diagram 3) | 200m | - (Built into GOT) | | 1 GOT for each port of a serial communication board | |
| | | | | GT15-RS4-9S | | | |
| | | | GT10-C02H-9SC | | | | |
| | | | RS-422 connection diagram 7) | 200m | - (Built into GOT) | | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to C1000H, C2000H



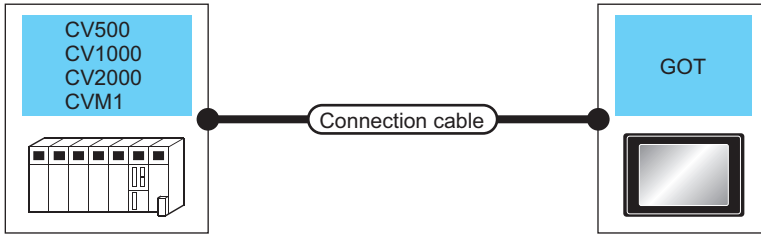
| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|------------------------------|--|------------------------------|--|--------------------|-----------------------------|-------------------------------|--------------------------------------|--|
| Model name | Rack type host link unit ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | |
| C1000H C2000H | C500-LK201-V1 | RS-232 | GT09-C30R20103-25P(3m) or RS-232 connection diagram 3) | 15m | - (Built into GOT) | | 1 GOT for 1 rack type host link unit | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | RS-232 connection diagram 6) | 15m | - (Built into GOT) | | | | |
| | | RS-422 | RS-422 connection diagram 2) | 200m | - (Built into GOT) | | | |
| | | | | | | GT15-RS4-9S | | |
| GT10-C02H-9SC | | | | | | | | |
| RS-422 connection diagram 6) | 200m | - (Built into GOT) | | | | | | |

*1 Product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to CV500, CV1000, CV2000, or CVM1



| PLC | | Connection cable | | GOT | | Number of connectable equipment | |
|-----------------------------------|--------------------|---|--|--------------------|--------------------|---------------------------------|-------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *2 | Model | | |
| CV500 CV1000 CV2000 CVM1 | RS-232 | GT09-C30R20101-9P(3m) or RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*1 | | |
| | | RS-232 connection diagram 4) | 15m | - (Built into GOT) | | | |
| | | RS-422 | GT09-C30R40101-9P(3m) GT09-C100R40101-9P(10m) GT09-C200R40101-9P(20m) GT09-C300R40101-9P(30m) or RS-422 connection diagram 1) | 200m | - (Built into GOT) | | |
| | | | | | | | GT15-RS4-9S |
| GT10-C02H-9SC | | | | | | | |
| RS-422 connection diagram 5) | 200m | - (Built into GOT) | | | | | |

*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*2 GT25-W, GT2505-V does not support the option device.

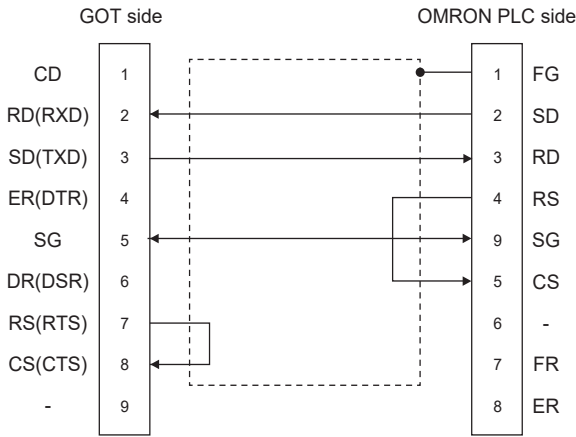
Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

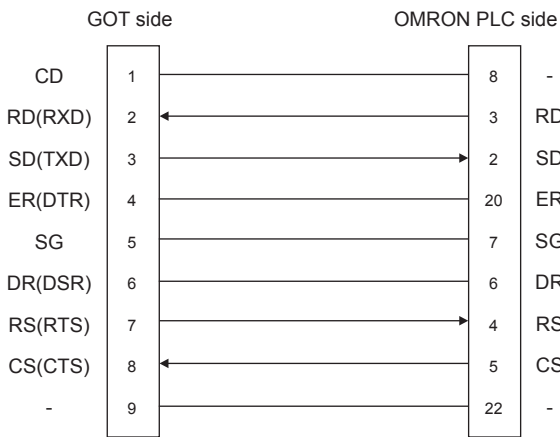
RS-232 cable

■ Connection diagram

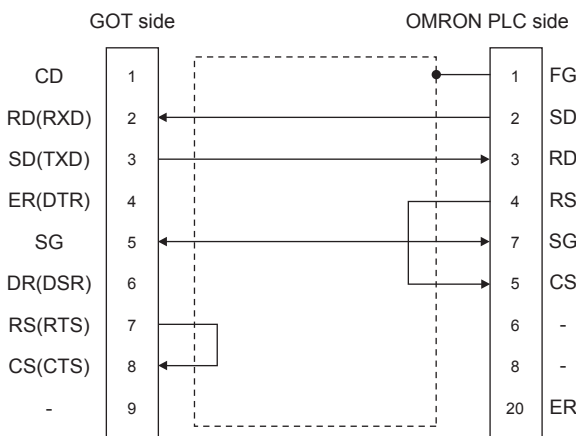
- RS-232 connection diagram 1)



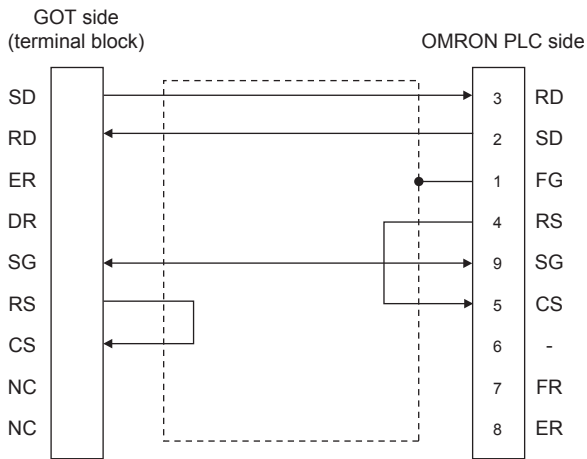
- RS-232 connection diagram 2)



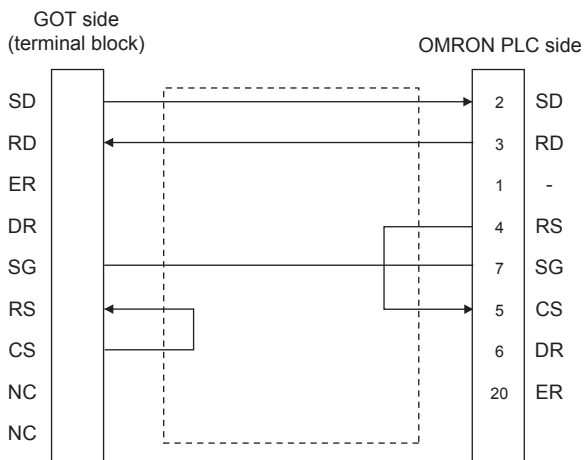
- RS-232 connection diagram 3)



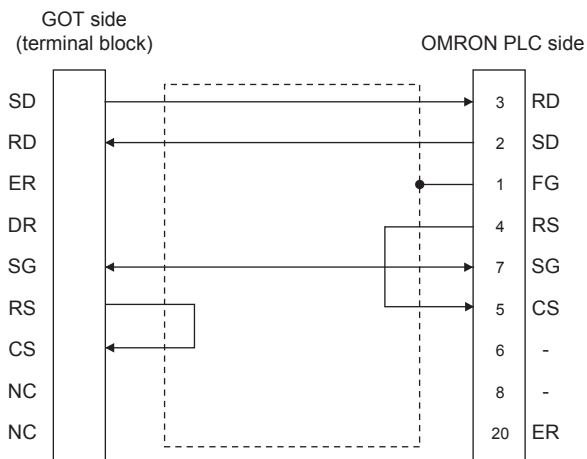
• RS-232 connection diagram 4)



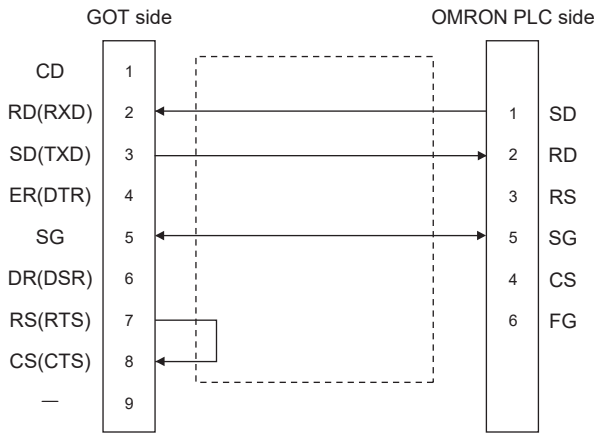
• RS-232 connection diagram 5)



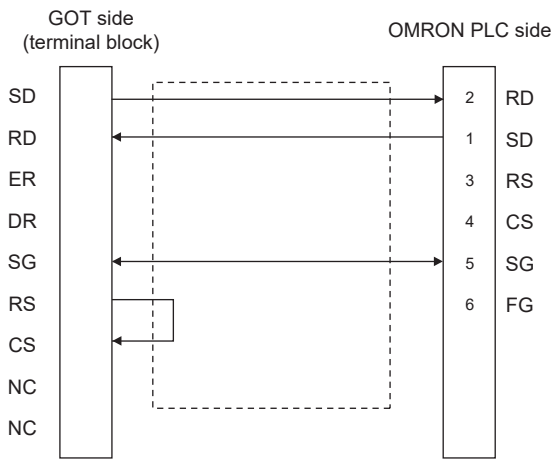
• RS-232 connection diagram 6)



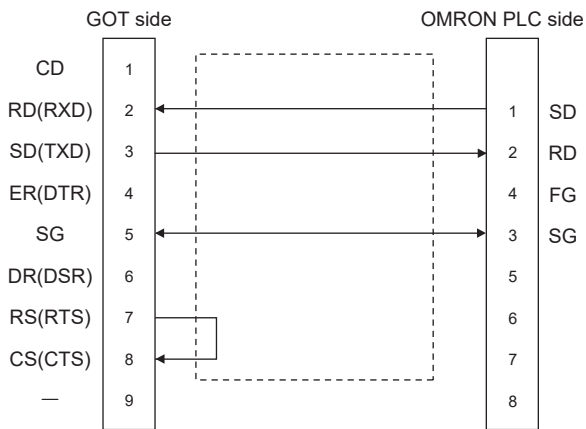
• RS-232 connection diagram 7)



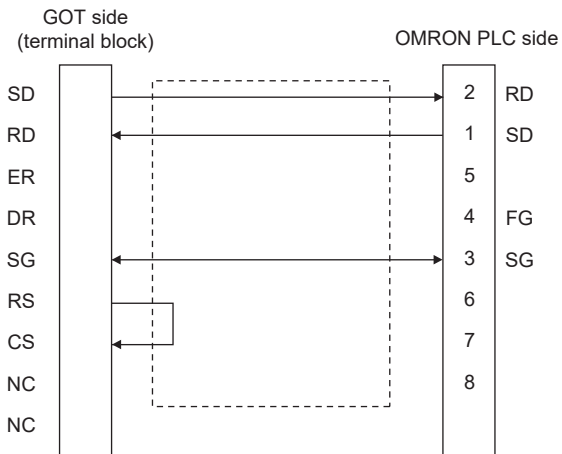
• RS-232 connection diagram 8)



• RS-232 connection diagram 9)



- RS-232 connection diagram 10)



■Precautions when preparing a cable

- Cable length

The length of the RS-232 cable must be 15m or less.

- GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

- OMRON PLC side connector

Use the connector compatible with the OMRON PLC.

For details, refer to the OMRON PLC user's manual.

RS-422 cable

Point

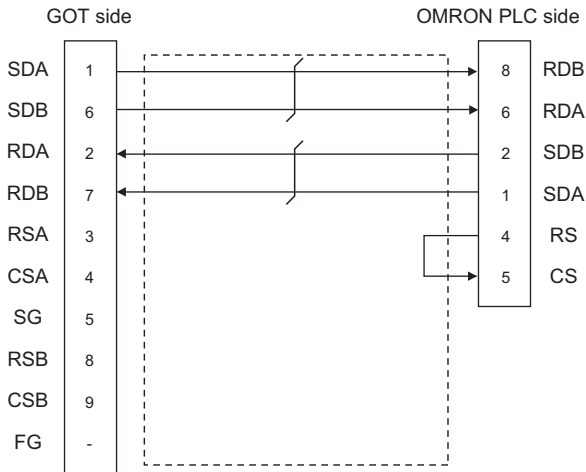
Differences in polarity between GOT and OMRON PLCs

The polarity of poles A and B in signal names is reversed between GOT and OMRON PLCs.

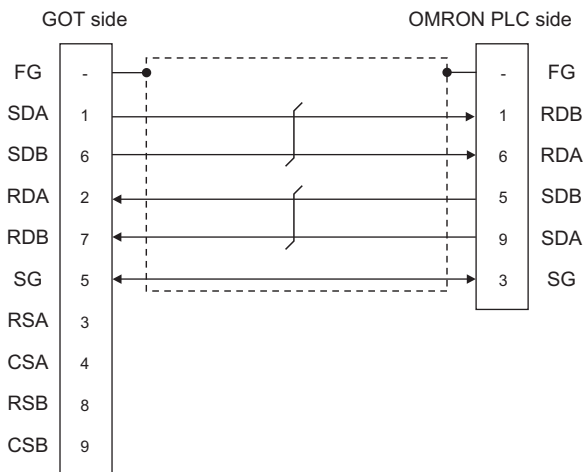
■ Connect a cable according to the following connection diagrams.

■ Connection diagram

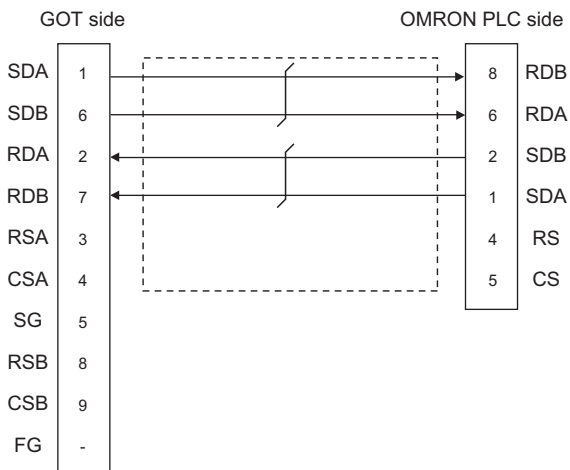
- RS-422 connection diagram 1)



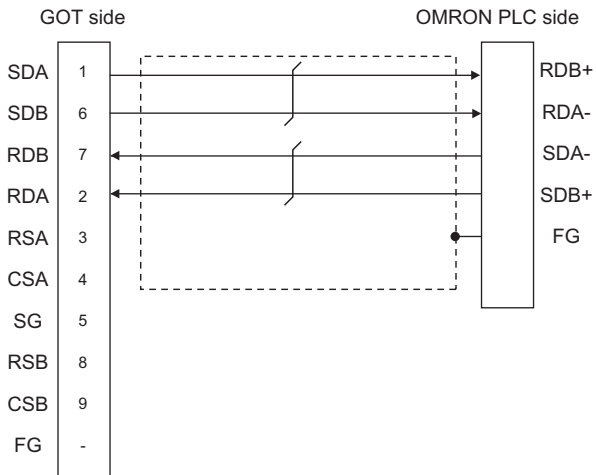
- RS-422 connection diagram 2)



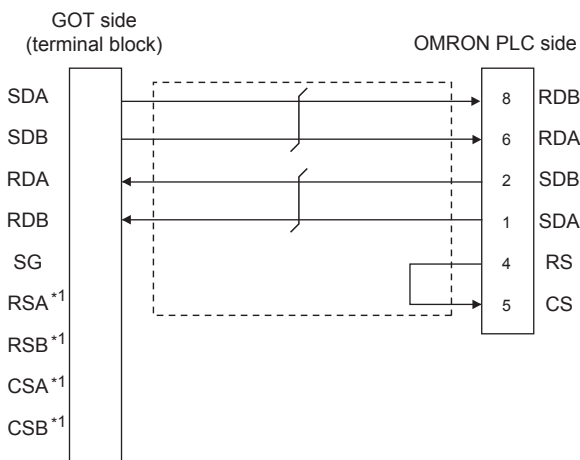
- RS-422 connection diagram 3)



• RS-422 connection diagram 4)

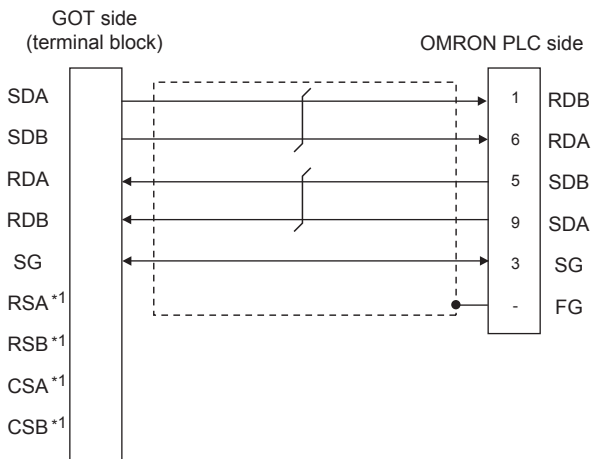


• RS-422 connection diagram 5)



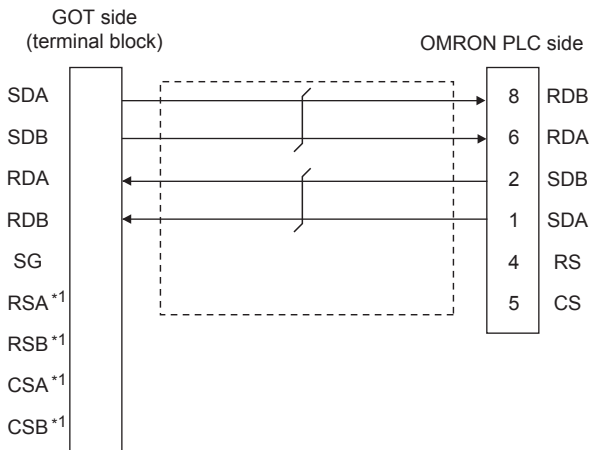
*1 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD.

• RS-422 connection diagram 6)



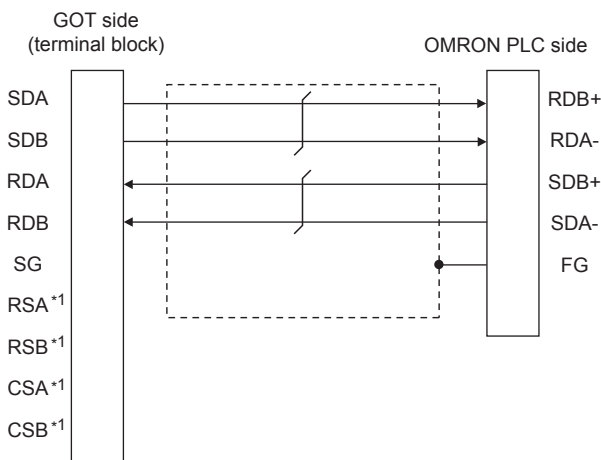
*1 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD.

• RS-422 connection diagram 7)



*1 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD.

• RS-422 connection diagram 8)



*1 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD.

■Precautions when preparing a cable

• Cable length

The distance between the GOT and the PLC of connection diagram 1), 2) and 3) must be 200 m or less.

The length of the RS-422 connection diagram 4) must be 50m or less.

• GOT side connector

For the GOT side connector, refer to the following.

📖 Page 58 GOT connector specifications

• OMRON PLC side connector

Use the connector compatible with the OMRON PLC.

For details, refer to the OMRON PLC user's manual.

■Setting terminating resistors

• GOT side

For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Disable".

For GT2505-V, GT21

Set the terminating resistor selector to "330Ω".

For GS21

Since the terminating resistor is fixed to 330 Ω, no setting is required for the terminating resistor.

For details of terminating resistor settings, refer to the following.

📖 Page 62 Terminating resistors of GOT

• OMRON PLC side

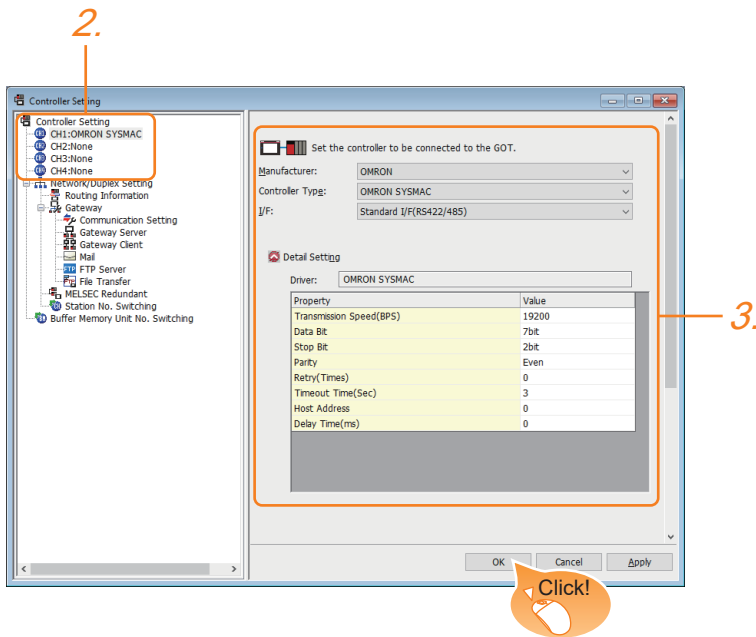
When connecting an OMRON PLC to a GOT, a terminating resistor must be set to the OMRON PLC.

📖 OMRON PLC user's Manual

GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [OMRON]
 - [Controller Type]: [OMRON SYSMAC]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 240 Communication detail settings
4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 19200 |
| Data Bit | 7 bit |
| Stop Bit | 2 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Host Address | 0 |
| Delay Time(ms) | 0 |


| Item | Description | Range |
|--------------------|--|---|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 19200bps) | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 7bits) | 7bit (fixed) |
| Stop Bit | Specify the stop bit length for communications. (Default: 2bits) | 2bit (fixed) |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | Even (fixed) |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address | Specify the host address (station No. of the PLC to which the GOT is connected) in the network of the GOT. (Default: 0) | 0 to 31 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300 (ms) |

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

PLC Side Setting



OMRON PLC

For details of OMRON PLCs, refer to the following manuals.

OMRON PLC user's Manual

| Model name | | Refer to |
|-----------------------------|----------------------------------|--|
| PLC CPU | CPM2A | Page 242 Connecting to CPM2A, CQM1, CQM1H, C200Ha or RS-232C adapter |
| | CQM1, CQM1H | |
| | CS1, CJ1, CJ2 | Page 243 Connecting to CJ1, CJ2, CS1, CP1H, CP1L, CP1E, or CP2E |
| | CP1H, CP1L, CP1E, CP2E-E, CP2E-S | Page 243 Connecting to CJ1, CJ2, CS1, CP1H, CP1L, CP1E, or CP2E |
| | C200Ha | Page 242 Connecting to CPM2A, CQM1, CQM1H, C200Ha or RS-232C adapter |
| | CV500, CV1000, CV2000, CVM1 | Page 246 Connecting to CV500/CV1000/CV2000 or CVM1 |
| RS-232C adapter | CPM1-CIF01, CPM2C-CIF01-V1 | Page 242 Connecting to CPM2A, CQM1, CQM1H, C200Ha or RS-232C adapter |
| Connection cable | CQM1-CIF01 | Page 247 Connecting to connection cable |
| | CQM1-CIF02 | |
| | CPM2C-CN111 | |
| Rack type host link unit | C200H-LK201-V1 | Page 248 Connecting to rack type host link unit |
| | C200H-LK202-V1 | Page 248 Connecting to rack type host link unit |
| | C500-LK201-V1 | Page 248 Connecting to rack type host link unit |
| Serial communication module | CJ1W-SCU21 | Page 252 Connecting to serial communication unit |
| | CJ1W-SCU41 | |
| | CJ1W-SCU21-V1 | |
| | CJ1W-SCU31-V1 | |
| | CJ1W-SCU41-V1 | |
| | CS1W-SCU21 | |
| | CS1W-SCU21-V1 | |
| Communication board | C200HW-COM02(-V1) | Page 253 Connecting to communication board |
| | C200HW-COM03(-V1) | |
| | C200HW-COM05(-V1) | |
| | C200HW-COM06(-V1) | |
| Serial communication board | CQM1H-SCB41 | Page 255 Connecting to serial communication board |
| | CS1W-SCB21 | |
| | CS1W-SCB21-V1 | |
| | CS1W-SCB41 | |
| | CS1W-SCB41-V1 | |
| RS-422A/485 Option board | CP1W-CIF11 | Page 256 Connecting to RS-422A/485 Option board |
| | CP1W-CIF12-V1 | |
| RS-422A converter | CJ1W-CIF11 | Page 256 Connecting to RS-422A converter |
| RS-232C&RS-485 Option Board | CP2W-CIFD2 | Page 257 Connecting to RS-232C&RS-485 Option Board |

Connecting to CPM2A, CQM1, CQM1H, C200Hα or RS-232C adapter

Device settings

Write the following set values to devices of each PLC CPU and initialize each port using a peripheral tool or DM monitor.

| Device name | Set value | | | | |
|-------------|---|-----------|----------|----|----|
| DM6645 | 0001H(fixed) | | | | |
| DM6646 | <table border="1"><tr><td>b15 to b8</td><td>b7 to b0</td></tr><tr><td>2)</td><td>1)</td></tr></table> <p>1) RS-232C port transmission speed setting **2 02H: 4800bps 03H: 9600bps 04H: 19200bps</p> <p>2) RS-232C port communication frame format 03H (fixed): The settings are: Start bit : 1 bit Data length: 7 bits Stop bit : 2 bits Parity : Even bits</p> | b15 to b8 | b7 to b0 | 2) | 1) |
| b15 to b8 | b7 to b0 | | | | |
| 2) | 1) | | | | |
| DM6647 | 0000 (fixed) | | | | |
| DM6648*3 | 0000 to 0031 | | | | |
| DM6649 | 0000 (fixed) | | | | |

*1 Only transmission speeds available on the GOT side are shown.

*2 Set the same transmission speed of the RS-232C port as that of the GOT side.

*3 Set the RS-232C port host link station No. according to the Host Address on the GOT side.

Point

Precautions for changing device values

Before changing the device values, make sure that the switch settings have been changed as follows:

CPM2A:

The communication condition switch to "individual"

Other PLC CPU:

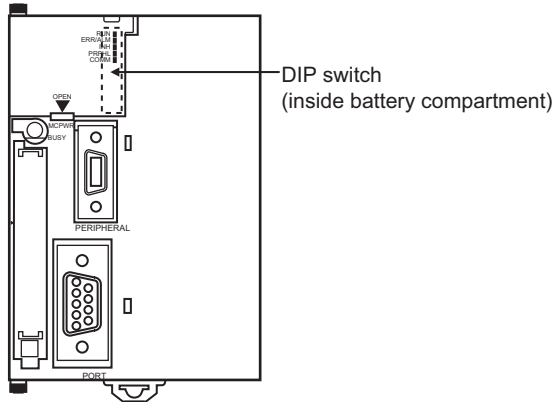
Front panel DIP switch SW5 to "OFF"

Connecting to CJ1, CJ2, CS1, CP1H, CP1L, CP1E, or CP2E

Setting DIP switches

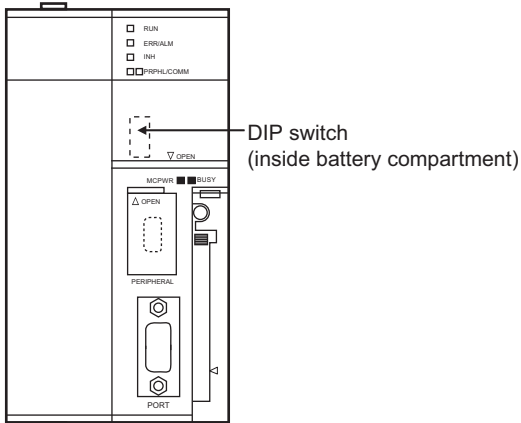
Set the DIP switches.

■ Setting on the CJ1, CJ2



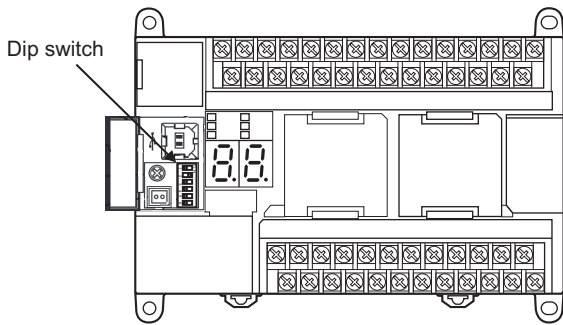
| Switch | Description | Settings |
|-----------|---|----------|
| ON ← 1 | SW1 Enable/disable write to user memory (UM) | OFF |
| 2 | SW2 Enable/disable automatic transfer of user program at power ON | OFF |
| 3 | SW3 Free | OFF |
| 4 | SW4 CJ1: Peripheral port communication condition CJ2: Free | OFF |
| 5 | SW5 RS-232C communication condition | OFF |
| 6 | SW6 User customized DIP switch | OFF |
| 7 | SW7 Type specification for simplified backup | OFF |
| 8 | SW8 - | OFF |

■Setting on the CS1



| Switch | Description | Settings | |
|--------|-------------|---|-----|
| | SW1 | Enable/disable write to user memory (UM) | OFF |
| | SW2 | Enable/disable automatic transfer of user program at power ON | OFF |
| | SW3 | Programming console message display language (Japanese/English) | OFF |
| | SW4 | Peripheral port communication condition | OFF |
| | SW5 | RS-232C communication condition | OFF |
| | SW6 | User customized DIP switch | OFF |
| | SW7 | Type specification for simplified backup | OFF |
| | SW8 | - | OFF |

■Setting on the CP1H, CP1L



| Switch | Description | | Settings |
|--------|-------------|--------------------|-------------------------|
| | SW4 | Option Board Slot1 | According to PLC Setup. |
| | SW5 | Option Board Slot2 | |
| | | | OFF |
| | | | OFF |

4

■Setting on the CP1E, CP2E

Settings by DIP switch are not required.

Setting PLC system settings

■CJ1, CJ2, CS1

Make the PLC system settings.

| Channel | Bit | Item | Set value |
|---------|---------|---|---|
| 160 | 15 | Arbitrary settings ON/OFF | 1H: Arbitrary settings (fixed) |
| | 8 to 11 | Serial communication mode | 0H: Upper link (fixed) |
| | 3 | Data bit | 0H: 7bits (fixed) |
| | 2 | Stop bit | 0H: 2bits (fixed) |
| | 0 to 1 | Parity | 0H: Even (fixed) |
| 161 | 0 to 7 | Port transmission speed ^{*1,2} | 00H: 9600bps 05H: 4800bps 06H: 9600bps 07H: 19200bps 08H: 38400bps 09H: 57600bps 0AH: 115200bps |
| 163 | 0 to 7 | Host link station No. ^{*3} | 0H to 1FH : No.00 to 31 |

*1 Only transmission speeds available on the GOT side are shown.

*2 Set the same port transmission speed as that of the GOT side.

*3 Set the host link station No. according to the Host Address on the GOT side.



Precautions for changing the PLC system settings

Before changing the PLC system settings, make sure that the switch settings have been changed as follows:

CJ1, CJ2, CS1: Front panel DIP switch SW5 to "OFF"

■CP1H, CP1L, CP1E, CP2E

Set the PLC system settings of the option slot connected to the GOT.

| Item | Set value |
|---------------------------|---|
| Mode | Host link |
| Parameter | 7, 2, E |
| Baud rate ^{*1*2} | 4800bps, 9600bps, 19200bps , 38400bps, 57600bps, 115200bps |
| Unit number ^{*3} | 00 to 31 |

*1 Only transmission speeds available on the GOT side are shown.

*2 Set the same port transmission speed as that of the GOT side.

*3 Set the host link station No. according to the Host Address on the GOT side.

Point

Precautions for changing the PLC system settings

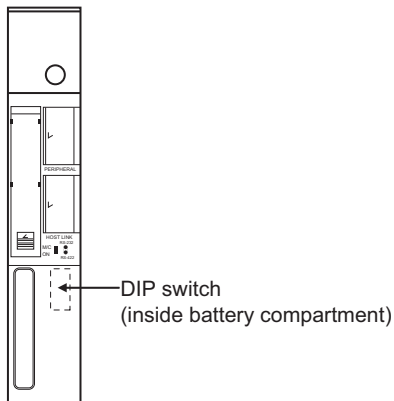
When using the CP1H or CP1L, if you change the PLC system settings, check the settings of the front DIP switch that corresponds to the option slot used to establish communication with the GOT.

☞ Page 245 Setting on the CP1H, CP1L

Connecting to CV500/CV1000/CV2000 or CVM1

Setting DIP switches

Set the DIP switches.



■Host link RS-422/232 switch

RS-232



RS-422

| Settings | |
|--------------------------|--------------------------|
| For RS-232 communication | For RS-422 communication |
| RS-232 (up) | RS-422 (down) |

■DIP switches

| Switch No. | Settings | |
|------------|--------------------------|-------------------------------|
| | For RS-232 communication | For RS-422 communication |
| | 6 | OFF (no terminating resistor) |
| | 5 | OFF |
| | 4 | OFF |
| | 3 | OFF |
| | 2 | OFF |
| | 1 | OFF |

Setting PLC system settings

Make the PLC system settings.

| Item | Set value |
|------------------------------------|--------------------------|
| Transmission speed ^{*1*2} | 4800bps/9600bps/19200bps |
| Stop bit | 2 stop bits (fixed) |
| Parity | Even (fixed) |
| Data bit | 7bits (fixed) |
| Unit number ^{*3} | 00 to 31 |

*1 Only transmission speeds available on the GOT side are shown.

*2 Set the same transmission speed of the GOT.

*3 Set the station No. according to the Host Address on the GOT side.

Connecting to connection cable

Device settings

Write the following set values to devices of each PLC CPU and initialize each port using a peripheral tool or DM monitor.

| Device name | Set value | | | | |
|----------------------|---|-----------|----------|----|----|
| DM6650 | 0001H(fixed) | | | | |
| DM6651 | <table border="1"> <tr> <td>b15 to b8</td> <td>b7 to b0</td> </tr> <tr> <td>2)</td> <td>1)</td> </tr> </table> <p>1) RS-232C port transmission speed setting^{*1*2} 02H: 4800bps 03H: 9600bps 04H: 19200bps</p> <p>2) RS-232C port communication frame format 03H (fixed): The settings are: Start bit : 1 bit Data length: 7 bits Stop bit : 2 bits Parity : Even bits</p> | b15 to b8 | b7 to b0 | 2) | 1) |
| b15 to b8 | b7 to b0 | | | | |
| 2) | 1) | | | | |
| DM6652 | 0000 (fixed) | | | | |
| DM6653 ^{*3} | 0000 to 0031 | | | | |

*1 Only transmission speeds available on the GOT side are shown.

*2 Set the same transmission speed of the peripheral port as that of the GOT side.

*3 Set the peripheral port host link station No. according to the Host Address on the GOT side.



Precautions for changing device values

Before changing the device values, make sure that the switch settings have been changed as follows:

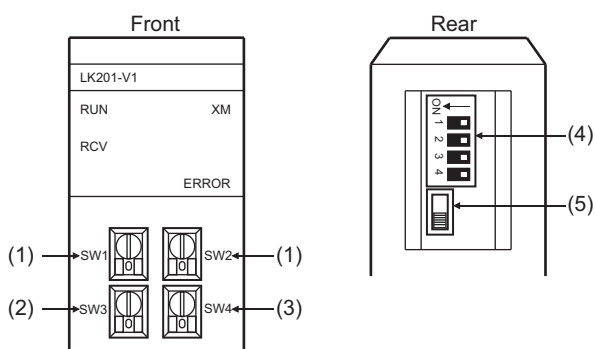
CPM2A: The communication condition switch to "individual"

CPM2C: The communication port function switch to "OFF"

Connecting to rack type host link unit

Switch setting on C200H-LK201-V1

Set the switches accordingly.



■Setting Machine No. (SW1, SW2)

Set the Machine No. within the range of 00 to 31.

Set the station No. according to the Host Address on the GOT side.



| Rotary switch | Description | Settings |
|---------------|---|----------|
| SW1 | Machine No. upper digit ($\times 10^1$) | 0 to 3 |
| SW2 | Machine No. lower digit ($\times 10^0$) | 0 to 9 |

■Setting transmission speed (SW3)

Set the same transmission speed of the GOT.



| Setting ^{*1} | Settings |
|-----------------------|----------|
| 4 | 4800bps |
| 5 | 9600bps |
| 6 | 19200bps |

*1 Only transmission speeds available on the GOT side are shown.

■Setting command level/parity/transmission code (SW4)



| Settings | Setting details | | |
|----------|---------------------------|--------|-----------------------------|
| | Command level | Parity | Transmission code |
| 2(fixed) | Levels 1, 2 and 3 enabled | Even | ASCII 7 bits 2 stop bits |

■Setting DIP switches



| Switch No. | Set value |
|------------|--------------------------|
| 1 | OFF |
| 2 | OFF |
| 3 | ON (1:N procedure) |
| 4 | OFF (no 5V power supply) |

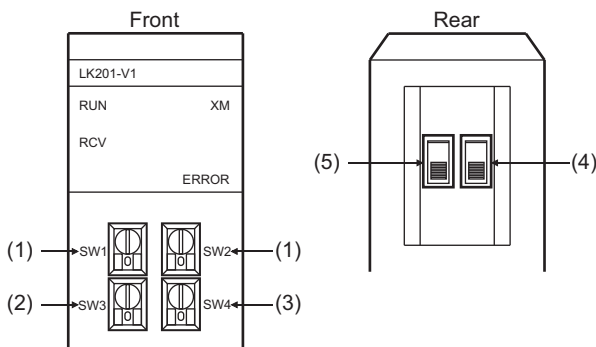
■Setting the CTS switch



| Settings |
|----------|
| 0V |

Switch setting on C200H-LK202-V1

Set the switches accordingly.



■Setting Machine No. (SW1, SW2)

Set the Machine No. within the range of 00 to 31.

Set the station No. according to the Host Address on the GOT side.



| Rotary switch | Description | Settings |
|---------------|---|----------|
| SW1 | Machine No. upper digit ($\times 10^1$) | 0 to 3 |
| SW2 | Machine No. lower digit ($\times 10^0$) | 0 to 9 |

■Setting transmission speed (SW3)

Set the same transmission speed of the GOT.



| Setting ^{*1} | Settings |
|-----------------------|----------|
| 4 | 4800bps |
| 5 | 9600bps |
| 6 | 19200bps |

*1 Only transmission speeds available on the GOT side are shown.

■Setting command level/parity/transmission code (SW4)



| Settings | Setting details | | |
|----------|---------------------------|--------|-----------------------------|
| | Command level | Parity | Transmission code |
| 2(fixed) | Levels 1, 2 and 3 enabled | Even | ASCII 7 bits 2 stop bits |

■Setting the 1:1/1:N procedure switch



| Settings |
|---------------------|
| OFF (1:N procedure) |

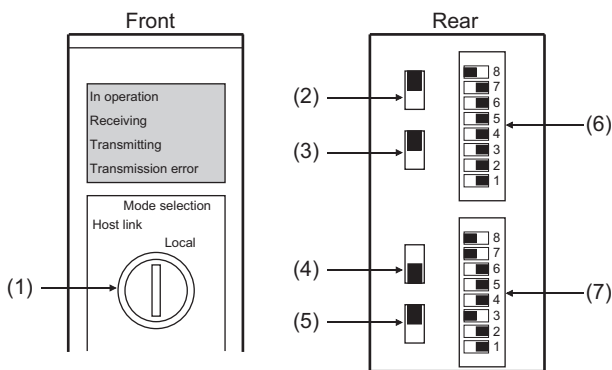
■Setting the terminating resistor connection switch



| Settings |
|------------------------------------|
| ON (terminating resistor attached) |

Switch setting on C500-LK201-V1

Set the switches accordingly.



■Setting host link/local



| Settings |
|-----------|
| Host link |

■RS-232C/RS-422 switch



| Settings | |
|--------------------------|--------------------------|
| For RS-232 communication | For RS-422 communication |
| RS-232 (down) | RS-422 (up) |

■Internal/external clock switch



| Settings |
|---------------|
| Internal (up) |

■ Terminating resistor connection switch



Settings

Attached (down)

■ CTS switch



Settings

0V (up)

■ Setting SW1 (Station No., Run/Stop)

| Switch No. | Settings | Description |
|------------|---|-------------|
| 8 | ON | Run |
| 7 | OFF | - |
| 6 | OFF | - |
| 5 | Set the station No. within the range of 00 to 31. For details, refer to the following manual. OMRON PLC user's Manual | |
| 4 | | |
| 3 | | |
| 2 | | |
| 1 | | |

■ Setting SW2 (Transmission speed, Procedure, Level)

| Switch No. | Settings | Description |
|------------|----------|---------------------------|
| 8 | ON | Levels 1, 2 and 3 enabled |
| 7 | ON | |
| 6 | OFF | 1:N procedure |
| 5 | OFF | - |
| 4 | *1 | Transmission speed |
| 3 | | |
| 2 | | |
| 1 | | |

*1 Only transmission speeds available on the GOT side are shown.

| Transmission speed | Switch No. | | | |
|--------------------|------------|-----|-----|-----|
| | SW1 | SW2 | SW3 | SW4 |
| 4800bps | OFF | ON | ON | OFF |
| 9600bps | ON | OFF | ON | OFF |
| 19200bps | OFF | OFF | ON | OFF |

Connecting to serial communication unit

Device settings

Write the following set values to devices of each PLC CPU and initialize each port using a peripheral tool or DM monitor.

| Device name | | Set value | | | | |
|-------------|------------|--|-----------|----------|----|----|
| Port 1 | Port 2 | | | | | |
| DM(m) | DM(m+10) | 8000H(fixed): The settings are: Port setting: Arbitrary setting Serial communication mode: Host link Start bit: 1bit Data bit: 7bits Stop bit: 2bits Parity: Even | | | | |
| DM(m+1) | DM(m+11) | <table border="1"> <thead> <tr> <th>b15 to b8</th> <th>b7 to b0</th> </tr> </thead> <tbody> <tr> <td>0H</td> <td>1)</td> </tr> </tbody> </table> <p>1) Transmission speed*1*2 00H: 9600bps 08H: 38400bps 05H: 4800bps 09H: 57600bps 06H: 9600bps 0AH: 115200bps 07H: 19200bps</p> | b15 to b8 | b7 to b0 | 0H | 1) |
| b15 to b8 | b7 to b0 | | | | | |
| 0H | 1) | | | | | |
| DM(m+2) | DM(m+12) | 8000H(fixed) | | | | |
| DM(m+3)*3 | DM(m+13)*3 | 8000H to 801FH | | | | |

m = 30000 + (100 × unit No.)

*1 Only transmission speeds available on the GOT side are shown.

*2 Set the same transmission speed of the GOT.

*3 Set the host link station No. according to the Host Address on the GOT side.

DIP switch setting

Set the DIP switches when connecting to CJ1W-SCU31-V1 or CJ1W-SCU41(-V1) to perform the RS-422 communications.

| DIP switch | | Set value |
|------------|-------------------------------|-------------------------------|
| Name | Description | |
| WIRE | Setting(2-wire/4-wire) Switch | 4 (4-wire type) |
| TERM | Terminator ON/OFF switch | OFF (no terminating resistor) |

Connecting to communication board

Device settings

Write the following set values to devices of each PLC CPU and initialize each port using a peripheral tool or DM monitor.

| Device name | | Set value | | | | |
|----------------------|----------------------|--|-----------|----------|----|----|
| Port B | Port A | | | | | |
| DM6550 | DM6555 | 0001H(fixed) | | | | |
| DM6551 | DM6556 | <table border="1"> <tr> <td>b15 to b8</td> <td>b7 to b0</td> </tr> <tr> <td>2)</td> <td>1)</td> </tr> </table> <p>1) Transmission speed^{*1*2} 02H:4800bps 03H:9600bps 04H:19200bps</p> <p>2) Frame format setting 03H (fixed): The settings are: Start bit :1 bit Data length:7 bits Stop bit :2 bits Parity :Even bits</p> | b15 to b8 | b7 to b0 | 2) | 1) |
| b15 to b8 | b7 to b0 | | | | | |
| 2) | 1) | | | | | |
| DM6552 | DM6557 | 0000 (fixed) | | | | |
| DM6553 ^{*3} | DM6558 ^{*3} | 0000 to 0031 | | | | |

*1 Only transmission speeds available on the GOT side are shown.

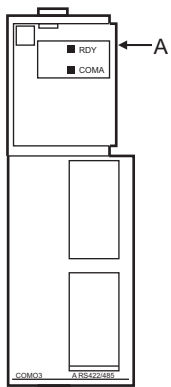
*2 Set the same transmission speed as that of the GOT side.

*3 Set the host link station No. according to the Host Address on the GOT side.

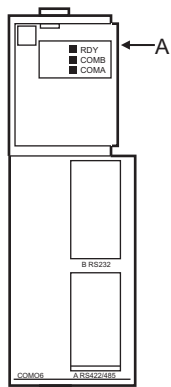
Setting DIP switches (C200HW-COM03(-V1) and C200HW-COM06(-V1) only)

Set the DIP switches when performing the RS-422 communications on the C200HW-COM03(-V1) and C200HW-COM06(-V1).

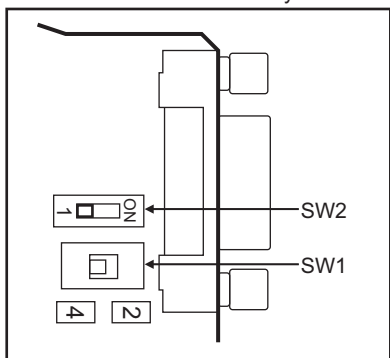
C200HW-COM03(-V1)



C200HW-COM06(-V1)



Side view indicated by A



| DIP switch | | Set value |
|------------|--|--------------------------------------|
| No. | Item | |
| SW1 | RS-422/485 cable (2-wire/4-wire type) switching | 4 (4-wire type) |
| SW2 | Terminator ON/OFF | 1 (no terminating resistor attached) |

Connecting to serial communication board

For the setting for connecting to the serial communication board (CQM1H-SCB41), refer to the following.

☞ Page 253 Connecting to communication board

Device settings

Write the following set values to devices of each PLC CPU and initialize each port using a peripheral tool or DM monitor.

| Device name | | Set value | | | | |
|-------------|----------|--|-----------|----------|----|----|
| Port 1 | Port 2 | | | | | |
| D32000 | D32010 | 8000H(fixed): The settings are: Port setting: Arbitrary setting Serial communication mode: Host link Start bit: 1bit Data bit: 7bits Stop bit: 2bits Parity: Even | | | | |
| D32001 | D32011 | <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>b15 to b8</td> <td>b7 to b0</td> </tr> <tr> <td>0H</td> <td>1)</td> </tr> </table> <p>1) Transmission speed¹⁾²⁾ 00H: 9600bps 08H: 38400bps 05H: 4800bps 09H: 57600bps 06H: 9600bps 0AH: 115200bps 07H: 19200bps</p> | b15 to b8 | b7 to b0 | 0H | 1) |
| b15 to b8 | b7 to b0 | | | | | |
| 0H | 1) | | | | | |
| D32002 | D32012 | 8000H(fixed) | | | | |
| D32003*3 | D32013*3 | 0000H to 0001FH | | | | |

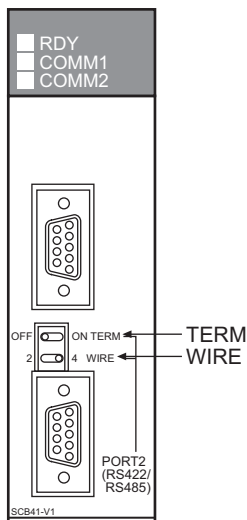
*1 Only transmission speeds available on the GOT side are shown.

*2 Set the same transmission speed of the GOT.

*3 Set the host link station No. according to the Host Address on the GOT side.

Setting the DIP switches (CS1W-SCB41(-V1) only)

Set the DIP switches when performing the RS-422 communications on the CS1W-SCB41(-V1).



| DIP switch | | Set value |
|------------|-------------------------------|-------------------------------|
| Name | Description | |
| WIRE | Setting(2-wire/4-wire) Switch | 4 (4-wire type) |
| TERM | Terminator ON/OFF switch | OFF (no terminating resistor) |

Precautions for changing the DM area

Before changing the DM area, make sure that the switch setting has been changed as follows.

CS1: Front panel DIP switch SW5 to "OFF"

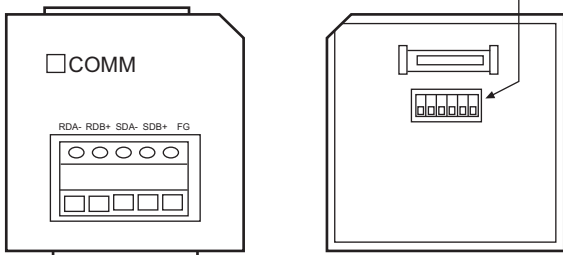
Connecting to RS-422A/485 Option board

Setting DIP switches

Set the DIP switches.

The DIP switch differs according to the type of the option board.

DIP Switches for Operation Settings

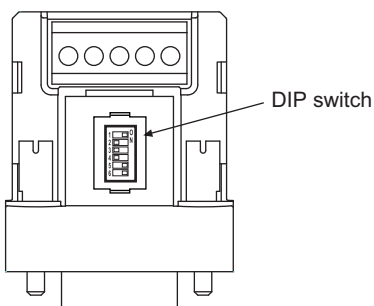


| Option board | | | | Settings | Description | |
|------------------------|---------|---------------|---------|----------|--------------------|----------------------------------|
| CP1W-CIF11, CP1W-CIF12 | | CP1W-CIF12-V1 | | | | |
| | Pin No. | | Pin No. | | | |
| | 1 | | 1 | ON | Enable | Terminating resistance selection |
| | 2 | | 2 | OFF | 4-wire type | 2-wire or 4-wire selection |
| | 3 | | 3 | OFF | 4-wire type | 2-wire or 4-wire selection |
| | 5 | | 1 | ON | RS control enabled | RS control selection for RD |
| | 6 | | 2 | ON | RS control enabled | RS control selection for SD |

Connecting to RS-422A converter

Setting DIP switches

Set the DIP switches.

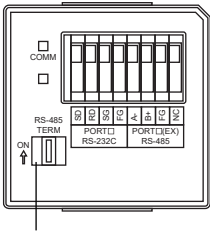


| Switch No. | | Settings | Description | |
|------------|---|----------|--------------------|----------------------------------|
| | 1 | ON | Enable | Terminating resistance selection |
| | 2 | OFF | 4-wire type | 2-wire or 4-wire selection |
| | 3 | OFF | 4-wire type | 2-wire or 4-wire selection |
| | 5 | ON | RS control enabled | RS control selection for RD |
| | 6 | ON | RS control enabled | RS control selection for SD |


Connecting to RS-232C&RS-485 Option Board

Setting DIP switch

Set whether to enable or disable terminating resistors using the DIP switch.

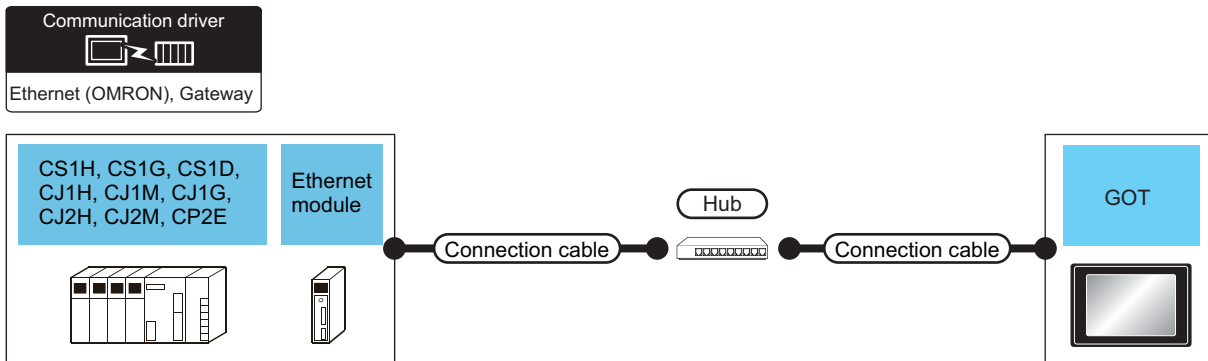


DIP switch









| Settings | Description | | |
|---|-------------|-------------------------|----------------------------------|
|  | ON | Enable (both terminals) | Terminating resistance selection |

4.3 Ethernet Connection

Connecting to SYSMAC CJ1, CJ2, CS1, or CP2 series



| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|----------------------|-------------------------------|--|--------------------------------------|-----------------------------|-------|---|
| Series | Ethernet module ^{*3} | Cable model ^{*1} | Maximum segment length ^{*2} | Option device ^{*6} | Model | |
| CS1H CS1G CS1D | CS1W-ETN21 CS1W-EIP21 | Twisted pair cable • 10BASE-T Shielded twisted pair cable (STP) or unshielded twisted pair cable (UTP): Category 3, 4, and 5 • 100BASE-TX Shielded twisted pair cable (STP): Category 5 and 5e | 100m | - (Built into GOT) | | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT TCP: 128 or less UDP: 128 or less When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC TCP: 16 or less ^{*4} UDP: No limit number ^{*5} |
| | | | | GT25-J71E71-100 | | |
| CS1D | CS1D-ETN21D | | 100m | - (Built into GOT) | | |
| | | | | GT25-J71E71-100 | | |
| CJ1H CJ1M CJ1G | CJ1W-ETN21 CS1W-EIP21 | | 100m | - (Built into GOT) | | |
| | | | | GT25-J71E71-100 | | |

| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|------------------------------|-------------------------------|--|--------------------------------------|---|---|---|
| Series | Ethernet module ^{*3} | Cable model ^{*1} | Maximum segment length ^{*2} | Option device ^{*6} | Model | |
| CJ2H-CPU6□-EIP CJ2M-CPU3□ | - | Twisted pair cable • 10BASE-T Shielded twisted pair cable (STP) or unshielded twisted pair cable (UTP): Category 3, 4, and 5 • 100BASE-TX Shielded twisted pair cable (STP): Category 5 and 5e | 100m | - (Built into GOT) |  | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT TCP: 128 or less UDP: 128 or less When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC TCP: 16 or less ^{*4} UDP: No limit number ^{*5} |
| | | | | GT25-J71E71-100 |  | |
| CJ1W-ETN21 CS1W-EIP21 | - | 100m | - (Built into GOT) |  | | |
| | | | GT25-J71E71-100 |  | | |
| CJ2H-CPU6□ CJ2M-CPU1□ | CJ1W-ETN21 CS1W-EIP21 | - | 100m | - (Built into GOT) |  | |
| | | | | GT25-J71E71-100 |  | |
| CP2E | - | - | 100m | - (Built into GOT) |  | |
| | | | | GT25-J71E71-100 |  | |

*1 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system. Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standards. To connect the target device and hub, use a cable according to the target controller configuration.

*2 A length between a hub and a node.
The maximum distance differs depending on the Ethernet device to be used.
The following shows the number of the connectable nodes when a repeater hub is used.
• 10BASE-T: Max. 4 nodes for a cascade connection (500m)
• 100BASE-TX: Max. 2 nodes for a cascade connection (205m)
When switching hubs are used, the cascade connection between the switching hubs has no logical limit for the number of cascades. For the limit, contact the switching hub manufacturer.

*3 Product manufactured by OMRON Corporation. For details of the product, contact OMRON Corporation.

*4 If it is connected to devices other than the GOT using the connection, the number of connectable GOTs decreases. For details, refer to the OMRON PLC user's manual.

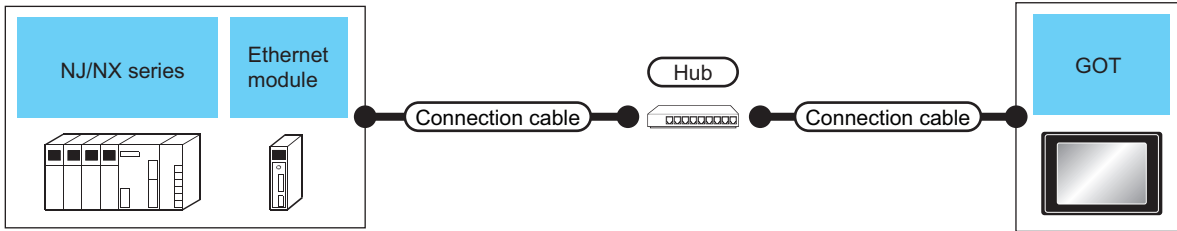
*5 There is no restriction for the number of GOTs. However, if the number of GOTs increases, the communication becomes high-loaded, and it may affect the communication performance.







*6 GT25-W, GT2505-V does not support the option device.



Connecting to NJ or NX series

Communication driver

 Ethernet(OMRON NJ/NX), Gateway



| PLC | | Connection cable | | GOT | | Number of connectable equipment | | | | | | | | | | |
|--|-------------------------------|---|--------------------------------------|---|---|---|--|------|--------------------------|---|--|--|------|--------------------|---|--|
| Series | Ethernet module ^{*3} | Cable model ^{*1} | Maximum segment length ^{*2} | Option device ^{*5} | Model | | | | | | | | | | | |
| NJ501-1500 NJ501-1400 NJ501-1300 NJ501-1520 NJ501-1420 NJ501-1320 NJ501-1340 NJ301-1200 NJ301-1100 NJ101-1000 NJ101-9000 NJ101-1020 NJ101-9020 | CJ1W-EIP21 | Shielded twisted pair cable (STP);Category 5 and 5e | 100m | - (Built into GOT) |  | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT 128 or less When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC <Connection: CLASS3> 128 or less ^{*4} <Connection: UCMM> 32 or less ^{*4} | | | | | | | | | | |
| | | | | GT25-J71E71-100 |  | | | | | | | | | | | |
| | | | | NJ501-1500 NJ501-1400 NJ501-1300 NJ501-1520 NJ501-1420 NJ501-1320 NJ501-1340 NJ301-1200 NJ301-1100 NJ101-1000 NJ101-9000 NJ101-1020 NJ101-9020 NX1P2-1140DT NX1P2-1140DT1 NX1P2-1040DT NX1P2-1040DT1 NX1P2-9024DT NX1P2-9024DT1 | - | | | 100m | - (Built into GOT) |  | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT 128 or less When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC <Connection: CLASS3> 32 or less ^{*4} <Connection: UCMM> 32 or less ^{*4} | | | | | |
| | | | | | | | | | GT25-J71E71-100 |  | | | | | | |
| | | | | | | | | | NX701-1700 NX701-1600 | - | | | 100m | - (Built into GOT) |  | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT 128 or less When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC <Connection: CLASS3> 128 or less per port (Total 256 or less for 2 ports) ^{*4} <Connection: UCMM> 32 or less per port (Total 64 or less for 2 ports) ^{*4} |
| | | | | | | | | | | | | | | GT25-J71E71-100 |  | |

| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|--|-------------------------------|---|--------------------------------------|-----------------------------|---|--|
| Series | Ethernet module ^{*3} | Cable model ^{*1} | Maximum segment length ^{*2} | Option device ^{*5} | Model | |
| NX102-1200 NX102-1100 NX102-1000 NX102-9000 | - | Shielded twisted pair cable (STP): Category 5 and 5e | 100m | - (Built into GOT) |  | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT 128 or less When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC <Connection: CLASS3> 32 or less per port (Total 64 or less for 2 ports) ^{*4} <Connection: UCMM> 32 or less per port (Total 64 or less for 2 ports) ^{*4} |
| | | | | GT25-J71E71-100 |  | |

^{*1} The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system. Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standards. To connect the target device and hub, use a cable according to the target controller configuration.

^{*2} A length between a hub and a node.

The maximum distance differs depending on the Ethernet device to be used.

The following shows the number of the connectable nodes when a repeater hub is used.

- 10BASE-T: Max. 4 nodes for a cascade connection (500m)
- 100BASE-TX: Max. 2 nodes for a cascade connection (205m)

When switching hubs are used, the cascade connection between the switching hubs has no logical limit for the number of cascades.

For the limit, contact the switching hub manufacturer.

^{*3} Product manufactured by OMRON Corporation. For details of the product, contact OMRON Corporation.

^{*4} If it is connected to devices other than the GOT using the connection, the number of connectable GOTs decreases.

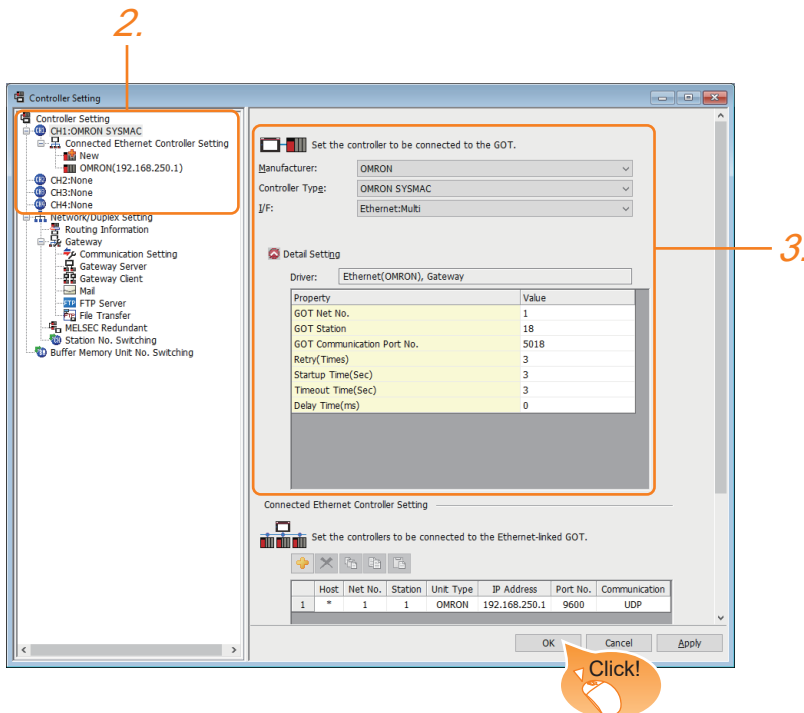
For details, refer to the OMRON PLC user's manual.

^{*5} GT25-W, GT2505-V does not support the option device.

GOT side settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Select the following items and the detail setting is displayed.
 - [Manufacturer]: [OMRON]
 - [Controller Type]: Depends on the PLC.
SYSMAC CJ1/CJ2/CS1/CP2 series: [OMRON SYSMAC]
NJ/NX series: [OMRON NJ/NX]
 - [I/F]: [Ethernet:Multi]
 - [Detail Setting]: Configure the settings according to the usage environment.
4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

Page 48 I/F communication setting

Communication detail settings

■Ethernet (OMRON), Gateway


Make the settings according to the usage environment.

| Property | Value |
|----------------------------|-------|
| GOT Net No. | 1 |
| GOT Station | 18 |
| GOT Communication Port No. | 5018 |
| Retry(Times) | 3 |
| Startup Time(Sec) | 3 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|--|---|--|
| GOT Net No. | Set the network No. of the GOT. (Default: 1) | 1 to 127 |
| GOT Station ^{*2*4} | Set the station No. of the GOT. (Default: 18) | 1 to 254 |
| GOT Communication Port No. ^{*1*4} | Set the GOT port No. for the connection with the Ethernet module. (Default: 5018 ^{*3}) | 1024 to 5010, 5014 to 65534 (Except for 5011, 5012, 5013 and 49153 to 49170) |
| Retry | Set the number of retries to be performed when a communication timeout occurs. When receiving no response after retries, the communication times out. (Default: 3times) | 0 to 5times |
| Startup Time | Specify the time period from the GOT startup until GOT starts the communication with the PLC CPU. (Default: 3sec) | 3 to 255sec |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 90sec |
| Delay Time | Set the delay time for reducing the load of the network/destination PLC. (Default: 0ms) | 0 to 10000 (ms) |


*1 Set [FINS UDP Port] of OMRON PLC CX-Programmer to the same value that is set in [GOT Communication Port No.].

*2 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].

 Page 265 Connected Ethernet Controller Setting

*3 When assigning the same driver to the multiple channels, in the communication drivers set as the second and following, the default value of [GOT Communication Port No.] becomes the earliest number in the vacant numbers of No. 6000 and later.

*4 Set a value within the setting range of the software for the programming apparatus.

 Page 267 CX-Programmer setting

■Ethernet (OMRON NJ/NX), Gateway

Make the settings according to the usage environment.

| Property | Value |
|----------------------------|-------|
| GOT Net No. | 1 |
| GOT Station | 18 |
| GOT Communication Port No. | 5034 |
| Startup Time(Sec) | 3 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|----------------------------|---|--|
| GOT Net No. | Set the network No. of the GOT. (Default: 1) | 1 to 239 |
| GOT Station ^{*1} | Set the station No. of the GOT. (Default: 18) | 1 to 64 |
| GOT Communication Port No. | Set the GOT port No. for the connection with the Ethernet module. (Default: 5034 ^{*3}) | 1024 to 5010, 5014 to 65534 (Except for 5011, 5012, 5013 and 49153 to 49170) |
| Startup Time | Specify the time period from the GOT startup until GOT starts the communication with the PLC CPU. (Default: 3sec) | 3 to 255sec |
| Timeout Time ^{*2} | Set the time period for a communication to time out. (Default: 3sec) | 1 to 90sec |
| Delay Time | Set the delay time for reducing the load of the network/destination PLC. (Default: 0ms) | 0 to 10000 (ms) |

*1 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].

☞ Page 265 Connected Ethernet Controller Setting

*2 When [CJ1W-EIP21] is set for [Unit Type] in [Connected Ethernet Controller Setting], even if [Timeout Time] is set to 10 seconds or shorter, the GOT operates with the communication timeout period of 10 seconds.

If [CJ1W-EIP21] and [OMRON NJ] are selectable for [Unit Type] in [Connected Ethernet Controller Setting], and [OMRON NJ] (built-in port connecting side) is set, the GOT also operates with the communication timeout period of 10 seconds.

☞ Page 265 Connected Ethernet Controller Setting

*3 When assigning the same driver to the multiple channels, in the communication drivers set as the second and following, the default value of [GOT Communication Port No.] becomes the earliest number in the vacant numbers of No. 6000 and later.

GOT Ethernet Setting

The GOT can be connected to a different network by configuring the following setting.

■GOT IP address setting

Set the following communication port setting.^{*1}

- Standard port (When using GT25-W or GS25: Port 1)
- Extended port (When using GT25-W or GS25: Port 2)

*1 Set a value within the setting range of the software for the programming apparatus.

☞ Page 267 CX-Programmer setting

■GOT Ethernet common setting

Set the following setting which is common to the standard port and the extension port, or port 1 and port 2.

- [Default Gateway]
- [Peripheral S/W Communication Port No.]
- [Transparent Port No.]

■IP filter setting

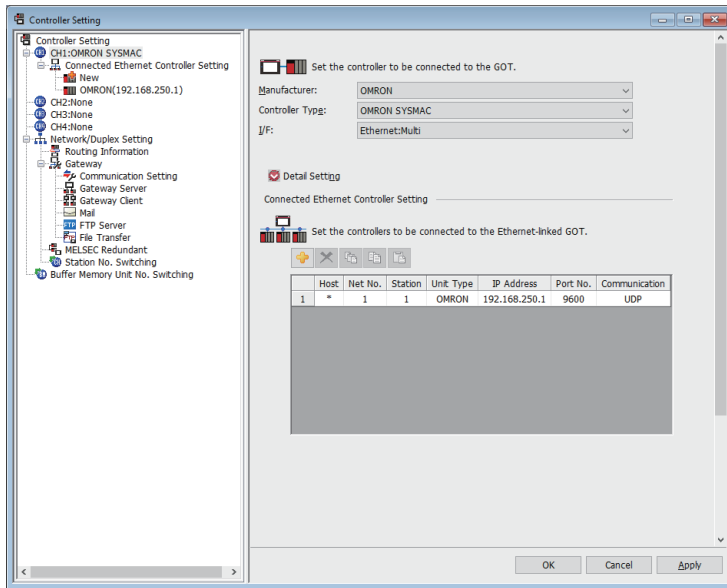
By configuring the IP filter setting, the access from the specific IP address can be permitted or shut off.

For the detailed settings, refer to the following manual.

☞ Page 44 GOT Ethernet Setting

Connected Ethernet Controller Setting

■ Ethernet (OMRON), Gateway



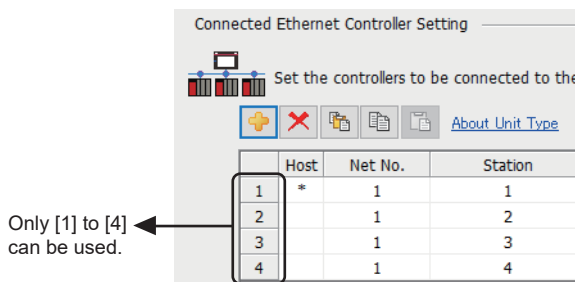
| Item | Description | Set value |
|----------------------|---|---------------------|
| Host | The host is displayed. It refers to a station that can be connected without setting a station number. (The host is indicated with an asterisk (*).) | - |
| Net No. | Set the network No. of the connected Ethernet module. (Default: 1) | 1 to 127 |
| Station*1 | Set the station No. of the connected Ethernet module. (Default: 1) | 1 to 254 |
| Unit Type | OMRON (fixed) | OMRON (fixed) |
| IP Address | Set the IP address of the connected Ethernet module. (Default: 192.168.250.1) | PLC side IP address |
| Port No. | Set the port No. of the connected Ethernet module. (Default: 9600) | 256 to 65534 |
| Communication format | Select a communication protocol. (Default: UDP) | UDP, TCP |

*1 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].
 ☞ Page 263 Communication detail settings

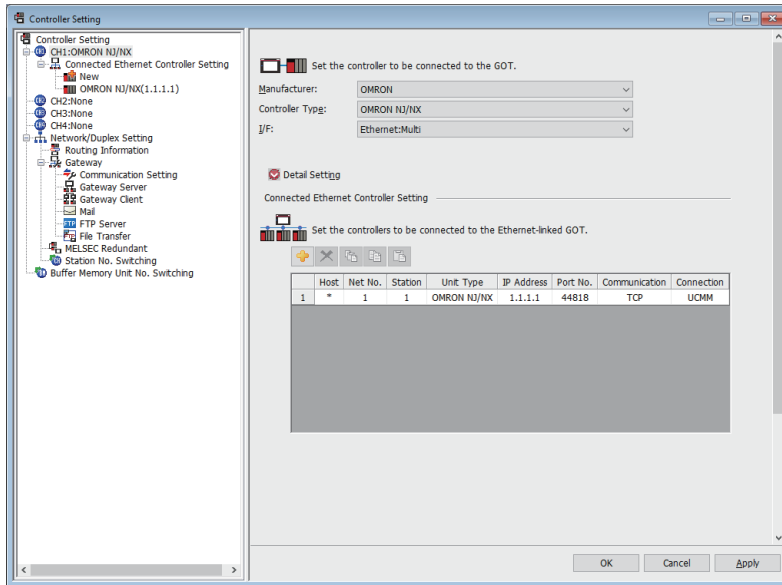
Point

[Connected Ethernet Controller Setting] for GT21 and GS21

- Effective range of [Connected Ethernet Controller Setting]
Only [1] to [4] of [Connected Ethernet Controller Setting] can be used for GT21 and GS21.
If [5] onwards are used, the settings are invalid on GT21 and GS21.
- [Host] setting
Set [Host] within the range from [1] to [4] in [Connected Ethernet Controller Setting].



■ Ethernet (OMRON NJ/NX), Gateway



| Item | Description | Set value |
|-----------------------|---|-----------------------------------|
| Host | The host is displayed. It refers to a station that can be connected without setting a station number. (The host is indicated with an asterisk (*).) | - |
| Net No. | Set the network No. of the connected Ethernet module. (Default: 1) | 1 to 239 |
| Station ^{*1} | Set the station No. of the connected Ethernet module. (Default: 1) | 1 to 64 |
| Unit Type | Select the device according to the connection destination. Built in Ethernet port: OMRON NJ/NX Communication unit: CJ1W-EIP21 ^{*2} (Default: OMRON NJ/NX) | OMRON NJ/NX, CJ1W-EIP21 |
| IP Address | Set the IP address of the connected Ethernet module. (Default: 1.1.1.1) | PLC side IP address ^{*3} |
| Port No. | 44818 (fixed) | 44818 (fixed) |
| Communication format | TCP (fixed) | TCP (fixed) |
| Connection | Set the connection. (Default: UCMM) | UCMM, Class3 |

*1 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].
 Page 263 Communication detail settings

*2 NX series does not support [CJ1W-EIP21].

*3 NX701 and NX102 have two built-in EtherNet/IP ports.

Set [IP Address] in [Connected Ethernet Controller Setting] in GT Designer3, according to the port number set for NX701 or NX102 to be connected.

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication setting] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

PLC side setting

Communication settings for SYSMAC CJ1/CJ2/CS1/CP2 series

For the communication between OMRON PLC (SYSMAC CJ1/CJ2/CS1/CP2 series) and GOT, use the FINS communication. For the FINS communication, the node must be specified according to the realm of FINS. However, for the Ethernet network, the data transfer according to the IP address is required.

The following four methods are available for converting the FINS node address to the IP address.

- Automatic generation method (dynamic)
- Automatic generation method (static)
- IP address table conversion method
- Combined method

For details of OMRON PLCs, refer to the following manual.

 OMRON PLC user's Manual


Node setting switch

Set the node setting switch of the module to the value of [Station] in [Connected Ethernet Controller Setting] in GT Designer3.

Note that the node setting switch is set in hexadecimal.

Convert this hexadecimal number to decimal, and set the value to [Station].

| Host | Net No. | Station | Unit Type | IP Address | Port No. | Communication |
|------|---------|---------|-----------|-------------|----------|---------------|
| 1 | * | 1 | OMRON | 192.168.3.1 | 9600 | UDP |

 Set the node setting switch of the module to this value.

CX-Programmer setting

For the PLC communication setting, set with a software for programming apparatus (CX-Programmer Ver.3.20 or later).

| Item | | Setting range | | | |
|--|--|---------------------------------------|--|--|-------------------------------|
| | | Automatic generation method (dynamic) | Automatic generation method (static) ^{*4*5} | IP address table method ^{*4*6} | Combined method ^{*4} |
| Ethernet module CPU highly-functional module | Global | All 1 (Default) | All 1 (Default) | All 1 (Default) | All 1 (Default) |
| | IP address ^{*1} | 192.168.3.1 ^{*3} | 192.168.3.1 ^{*3} | 192.168.3.1 | 192.168.3.1 |
| | Subnet Mask | 255.255.255.0 | 255.255.255.0 | 255.255.255.0 | 255.255.255.0 |
| | FINS UDP port ^{*1} | 9600 | 9600 | 9600 | 9600 |
| | IP address conversion | Automatic generation method (dynamic) | Automatic generation method (static) | IP address table method | Combined method |
| | IP address table | - | - | Destination node address: 18 ^{*7} Destination IP address: 192.168.3.18 | - ^{*8} |
| | Transmission speed | Automatic detection (Default) | Automatic detection (Default) | Automatic detection (Default) | Automatic detection (Default) |
| Node IP Address dynamically change ^{*2} | Change dynamically (Default) ^{*9} | Change dynamically (Default) | Change dynamically (Default) | Change dynamically (Default) | |


*1 Set the values of [IP Address] and [Port No.] in [Connected Ethernet Controller Setting] in GT Designer3 to [IP address] and [FINS UDP Port].

| Host | Net No. | Station | Unit Type | IP Address | Port No. | Communication |
|------|---------|---------|-----------|-------------|----------|---------------|
| 1 | * | 1 | OMRON | 192.168.3.1 | 9600 | UDP |

*2 The Node IP Address dynamically change function is available only when the Ethernet module to be used is Ver.1.3 or later.

For the setting, set in the module setting of CX-Programmer Ver.5.0 or later or in the WEB function.

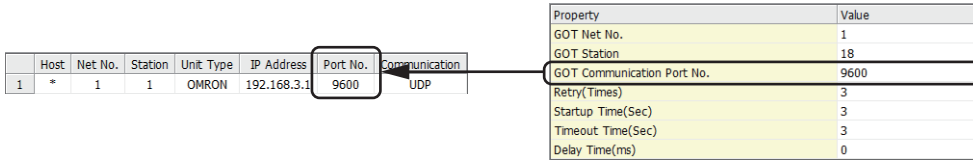
For details of Node IP Address dynamically change, refer to the following manual.

 OMRON PLC user's Manual

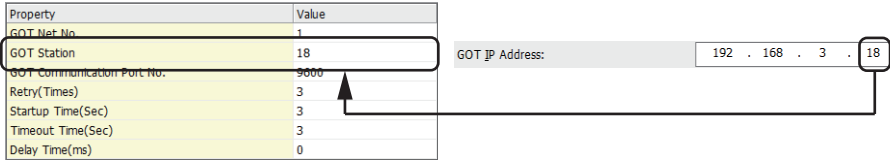
*3 Set the node setting switch of the module to the lowest byte of the [IP address].

Note that the node setting switch is set in hexadecimal. Convert this hexadecimal number to decimal, and set the value to the lowest byte of [IP Address].

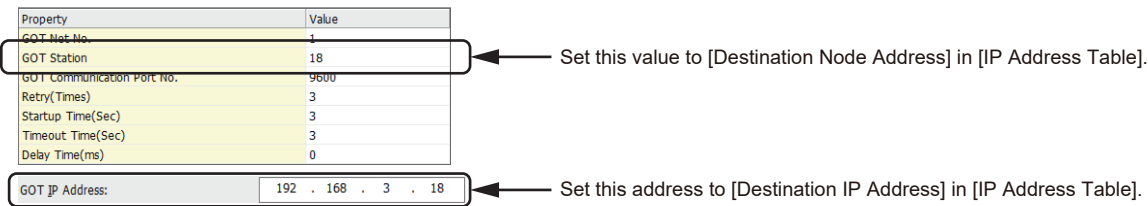
*4 In GT Designer3, set the value of [GOT Communication Port No.] in [Detail Setting] to [Port No.] in [Connected Ethernet Controller Setting].



*5 In GT Designer3, set the value of [GOT Station] in [Detail Setting] to the lowest byte of [GOT IP address] in [GOT IP Address Setting].



*6 In GT Designer3, set the value of [IP Address Table] to [GOT IP address] in [GOT IP Address Setting] and to [GOT Station] in [Detail Setting].



*7 Set the lowest byte of [Destination IP Address] to [Destination Node Address].

*8 To use [IP Address Table], apply the settings of the IP address table method.

*9 Not to set the dynamical change, set the same value to [GOT Communication Port No.] in [Detail Setting] and [Port No.] in [Connected Ethernet Controller Setting] in GT Designer3.

Communication Setting for NJ/NX series

For the PLC communication setting, set with an automation software Sysmac Studio.

■Versions of NJ series supporting Sysmac Studio

| Version of the CPU module | Version of Sysmac Studio |
|---------------------------|--------------------------|
| Ver.1.14 | Ver.1.18 |
| Ver.1.13 | Ver.1.17 |
| Ver.1.12 | Ver.1.16 |
| Ver.1.11 | Ver.1.15 |
| Ver.1.10 ^{*1} | Ver.1.13 ^{*2} |
| | Ver.1.12 |
| Ver.1.09 | Ver.1.10 |
| Ver.1.08 | Ver.1.09 |
| Ver.1.07 | Ver.1.08 |
| Ver.1.06 | Ver.1.07 |
| Ver.1.05 | Ver.1.06 |
| Ver.1.04 | Ver.1.05 |
| Ver.1.03 | Ver.1.04 |
| Ver.1.02 | Ver.1.03 |
| Ver.1.01 | Ver.1.02 |
| Ver.1.00 ^{*3} | Ver.1.01 |
| | Ver.1.00 |

*1 The CPU module NJ101-□□□□ does not have Ver. 1.09 or earlier.

*2 Use Sysmac Studio Ver. 1.13 or later for the CPU module NJ101-□□□□. Sysmac Studio Ver. 1.12 or earlier cannot be used for NJ101-□□□□.

*3 The CPU module NJ301-□□□□ does not have Ver. 1.00. Therefore, Sysmac Studio Ver. 1.01 or earlier cannot be used for NJ301-□□□□.



■ Versions of NX series supporting Sysmac Studio

| Version of the CPU module | Version of Sysmac Studio |
|---------------------------|--------------------------|
| Ver.1.30 ^{*1} | Ver.1.23 |
| Ver.1.18 ^{*2} | Ver.1.22 |
| Ver.1.16 ^{*3} | Ver.1.20 |
| Ver.1.14 | Ver.1.18 |
| Ver.1.13 ^{*4} | Ver.1.17 ^{*5} |
| Ver.1.12 | Ver.1.16 |
| Ver.1.11 | Ver.1.15 |
| Ver.1.10 | Ver.1.13 |

- *1 The version of CPU module NX102-□□□□ does not have Ver. 1.29 or earlier.
The CPU modules NX701-□□□□ and NX1P2-□□□□□□□□ do not have Ver. 1.30.
- *2 The CPU modules NX701-□□□□ and NX1P2-□□□□□□□□ do not have Ver. 1.17.
- *3 The CPU modules NX701-□□□□ and NX1P2-□□□□□□□□ do not have Ver. 1.15.
- *4 The CPU module NX1P2-□□□□□□□□ does not have Ver. 1.12 or earlier.
- *5 Use Sysmac Studio Ver. 1.17 or later for the CPU module NX1P2-□□□□□□□□.
Sysmac Studio Ver. 1.16 or earlier cannot be used for NX1P2-□□□□□□□□.

■ Setting of an automation software Sysmac Studio

| Item | Description | Range |
|-----------------------------|--|----------------------------|
| IP address ^{*1*3} | Set the IP address. | 0.0.0.0 to 255.255.255.255 |
| Subnet Mask ^{*2*3} | Set the subnet mask for the sub network. (Only for connection via router) If the sub network is not used, the default value is set. (Default: 255.255.255.0) | 0.0.0.0 to 255.255.255.255 |


- *1 Apply the same setting as [Connected Ethernet Controller Setting] of the GOT.
 Page 266 Ethernet (OMRON NJ/NX), Gateway
- *2 Apply the same setting as [GOT Ethernet Setting] of the GOT.
 Page 44 GOT Ethernet Setting
- *3 NX701-□□□□ and NX102-□□□□ have two built-in EtherNet/IP ports that can be set individually.

Precautions

When connecting to multiple GOTs

■Setting station no.

When connecting two or more GOTs in the Ethernet network, set each station no. to the GOT.

 Page 265 Connected Ethernet Controller Setting

■Setting IP address

Do not use the IP address "192.168.0.18" when using multiple GOTs with the GOT 1000 series mixed.

A communication error may occur on the GOT with the IP address.

When setting IP address

Do not use "0" and "255" at the end of an IP address.

(Numbers of *.**.0 and *.**.255 are used by the system.)

The GOT may not monitor the controller correctly with the above numbers.

Consult with the administrator of the network before setting an IP address to the GOT and controller.

When connecting to the multiple network equipment (including GOT) in a segment

By increasing the network load, the transmission speed between the GOT and PLC may be reduced.

The following actions may improve the communication performance.

- Using a switching hub
- More high speed by 100BASE-TX (100Mbps)
- Reduction of the monitoring points on GOT

NJ/NX series start up

When writing or reading OMRON NJ/NX tag immediately after NJ/NX series setup, a system alarm may occur.

In this case, make the time to start communication with NJ/NX series longer in [Startup Time] for the communication detail settings.

For details, refer to the following manual.

 GT Designer3 (GOT2000) Screen Design Manual

4.4 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 635 OMRON equipment ([OMRON SYSMAC])










































☞ Page 639 OMRON equipment ([OMRON NJ/NX])

5 OMRON TEMPERATURE CONTROLLER

- Page 273 Connectable Model List
- Page 274 System Configuration
- Page 287 Connection Diagram
- Page 297 GOT Side Settings
- Page 300 Temperature Controller Side Setting
- Page 305 Settable Device Range
- Page 305 Precautions

5.1 Connectable Model List

The following table shows the connectable models.

| Series | Model name | Communication Type | Connectable GOT*1 | Refer to |
|-------------|--|----------------------------|--|---|
| THERMAC NEO | E5AN E5EN E5GN E5CN(-H,-HT) | RS-232 RS-485 |       |  Page 274 Connecting to the THERMAC NEO series |
| | E5AN-H E5EN-H E5AN-HT E5EN-HT | RS-232 RS-422 RS-485 |       | |
| INPANEL NEO | E5ZN | RS-232 RS-485 |       |  Page 281 Connecting to the INPANEL NEO |
| E5□C | E5CC(-T,-B) E5DC E5GC E5EC(-T,-B) E5AC(-T) | RS-232 RS-485 |       |  Page 283 Connecting to the E5□C series, E5□D series |
| E5□D | E5CD(-B) E5ED(-B) | RS-232 RS-485 |       |  Page 283 Connecting to the E5□C series, E5□D series |
| THERMAC R | E5AR(-T) E5ER(-T) | RS-232 RS-485 |       |  Page 285 Connecting to the THERMAC R series |

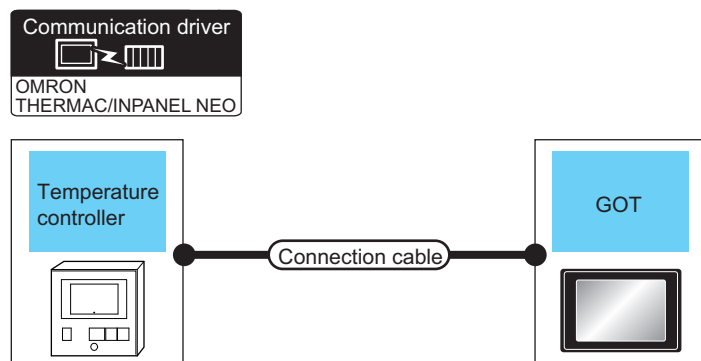
*1 For GS21, only GS21-W-N supports the RS-485 connection.

5.2 System Configuration

Connecting to the THERMAC NEO series

When connecting to one temperature controller

■ When connecting to E5AN, E5EN

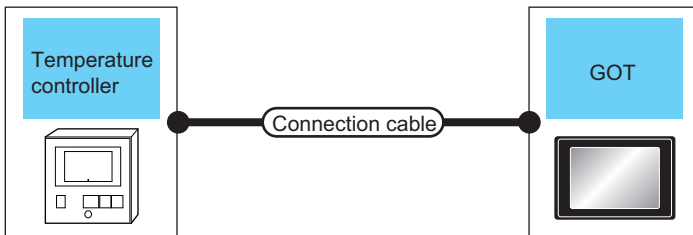
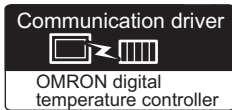


| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|------------------------|--------------------|--|---------------|-----------------------------|-------|------------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | |
| E5AN E5EN | RS-232 | Page 287 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 temperature controller for 1 GOT |
| | | | | GT15-RS2-9P | | |
| | | GT10-C02H-6PT9P ^{*1} | | | | |
| | | Page 287 RS-232 connection diagram 3) | 15m | - (Built into GOT) | | |

*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*2 GT25-W, GT2505-V does not support the option device.

■When connecting to E5AN-H, E5CN-H, E5EN-H, E5AN-HT, E5CN-HT, E5EN-HT



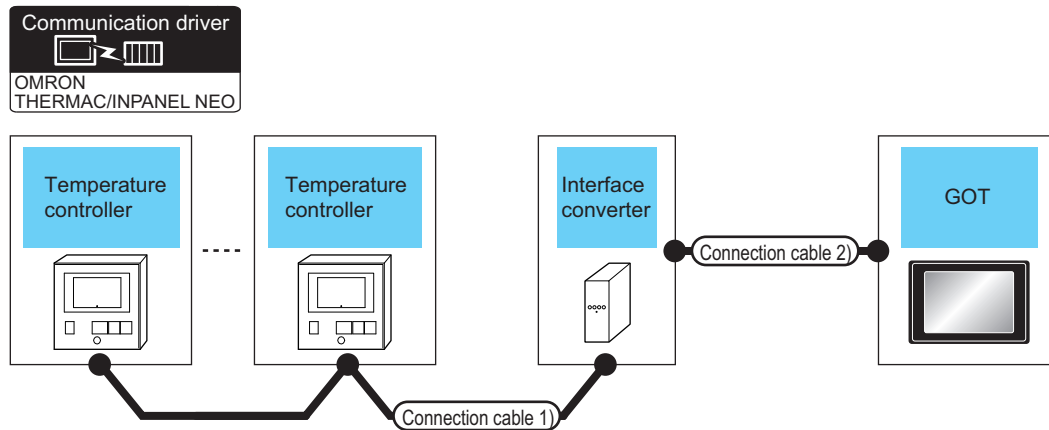
| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|---|--------------------|--|---------------|-----------------------------|-------------------------------|------------------------------------|--|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device* ² | Model | | |
| E5AN-H E5EN-H E5AN-HT E5EN-HT E5CN-H E5CN-HT | RS-232 | Page 287 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 temperature controller for 1 GOT | |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P* ¹ | | |
| | | Page 287 RS-232 connection diagram 3) | 15m | - (Built into GOT) | | | |

*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*2 GT25-W, GT2505-V does not support the option device.

When connecting to multiple temperature controllers (via an interface converter)

■ When connecting to E5AN, E5EN, E5CN, E5GN



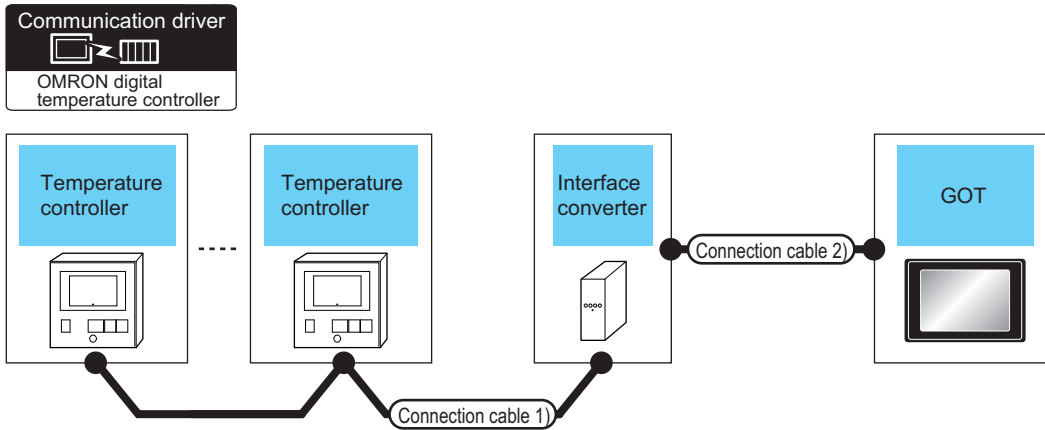
| Temperature controller | Connection cable 1) | | Interface converter* ¹ | | Connection cable 2) | | GOT | | Number of connectable equipment |
|------------------------------|--|--|-----------------------------------|------------|--|--|-------------------------------|-----------------------------|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device* ³ | |
| E5AN E5EN E5CN E5GN | (User preparing) Page 291 RS-485 connection diagram 1) | 500m | K3SC-10 | RS-232 | (User preparing) Page 287 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 32 temperature controllers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |
| | | | | | | | GT10-C02H-6PT9P* ² | | |
| | | | | | (User preparing) Page 288 RS-232 connection diagram 4) | 15m | - (Built into GOT) | | |

*1 The interface converter is a product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

■ When connecting to E5AN-H, E5CN-H, E5EN-H, E5AN-HT, E5CN-HT, E5EN-HT

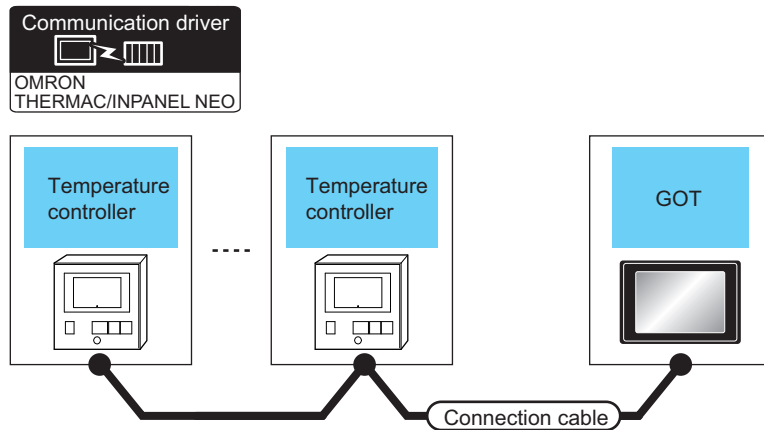


| Temperature controller | Connection cable 1) | | Interface converter*1 | | Connection cable 2) | | GOT | | Number of connectable equipment |
|---|--|--|-----------------------|------------|--|--|--------------------|-----------------|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | |
| E5AN-H E5EN-H E5AN-HT E5EN-HT E5CN-H E5CN-HT | (User preparing) Page 291 RS-485 connection diagram 1) | 500m | K3SC-10 | RS-232 | (User preparing) Page 287 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 32 temperature controllers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |
| | | | | | (User preparing) Page 288 RS-232 connection diagram 4) | 15m | - (Built into GOT) | | |

*1 The interface converter is a product manufactured by OMRON Corporation. For details on the product, contact OMRON Corporation.
 *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
 *3 GT25-W, GT2505-V does not support the option device.

When connecting to multiple temperature controllers

■When connecting to E5AN, E5EN, E5CN, E5GN



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|------------------------------|--------------------|--|---------------|---|------------------|--------------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| E5AN E5EN E5CN E5GN | RS-485 | Page 292 RS-485 connection diagram 2) | 500m | FA-LTBGT2R4CBL05 (0.5m) FA-LTBGT2R4CBL10 (1m) FA-LTBGT2R4CBL20 (2m) | | 31 temperature controllers for 1 GOT |
| | | Page 293 RS-485 connection diagram 3) | 500m | GT15-RS4-TE | | |
| | | Page 296 RS-485 connection diagram 6) | 500m | GT14-RS2T4-9P ^{*3} | | |
| | | Page 294 RS-485 connection diagram 4) | 500m | - (Built into GOT) | | |
| | | Page 295 RS-485 connection diagram 5) | | - (Built into GOT) | | |
| | | | | GT10-C02H-9SC | | |
| | | | | - (Built into GOT) | | |

*1 Not available to GT25-W.

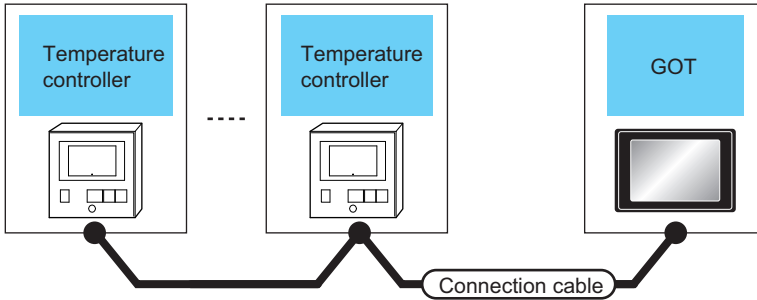
*2 Not available to GT2505-V.

*3 Mount it on the RS-232 interface (GOT built-in).




















*4 Only available to GT2505-V.

*5 Only available to GS21-W-N for GS21.

■When connecting to E5AN-H, E5CN-H, E5EN-H, E5AN-HT, E5CN-HT, E5EN-HT



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|---|--------------------|--|---------------|--|----------------------|---|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| E5AN-H E5EN-H E5AN-HT E5EN-HT E5CN-H E5CN-HT | RS-485 | Page 292 RS-485 connection diagram 2) | 500m | FA-LTBGT2R4CBL05(0.5m) FA-LTBGT2R4CBL10(1m) FA-LTBGT2R4CBL20(2m) | | 31 temperature controllers for 1 GOT *1 |
| | | Page 293 RS-485 connection diagram 3) | 500m | GT15-RS4-TE | | |
| | | Page 296 RS-485 connection diagram 6) | 500m | GT14-RS2T4-9P *4 | | |
| | | Page 294 RS-485 connection diagram 4) | 500m | -(Built into GOT) | | |
| | | Page 295 RS-485 connection diagram 5) | | GT10-C02H-9SC | | |
| | | | | -(Built into GOT) | | |

| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment |
|--|--------------------|---|---------------|---|---|---|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| E5AN-H E5EN-H E5AN-HT E5EN-HT | RS-422 |  Page 289 RS-422 connection diagram 1) | 500m | - (Built into GOT) |        | 31 temperature controllers for 1 GOT *1 |
| | | | | GT15-RS4-9S |   | |
| | | | | GT10-C02H-9SC |     | |
| | | - (Built into GOT) | |     | | |
| | |  Page 289 RS-422 connection diagram 2) | | | | |

*1 Up to 10 temperature controllers can be connected to GS21-W.

*2 Not available to GT25-W.

*3 Not available to GT2505-V.

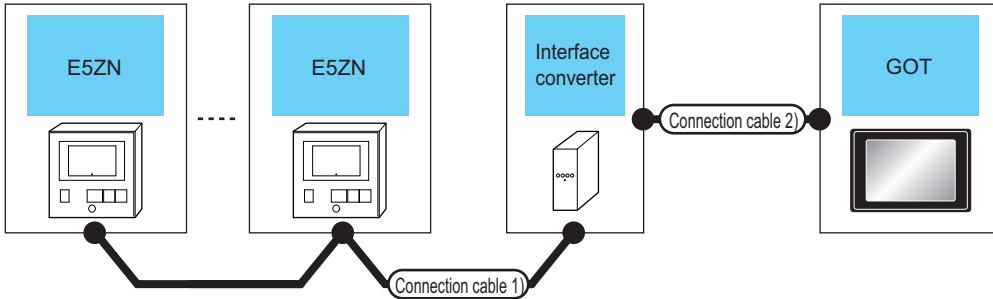
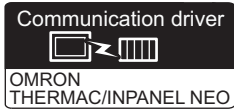
*4 Mount it on the RS-232 interface (GOT built-in).

*5 Only available to GT2505-V.

*6 Only available to GS21-W-N for GS21.

Connecting to the INPANEL NEO

When connecting to multiple temperature controllers (via interface converter)

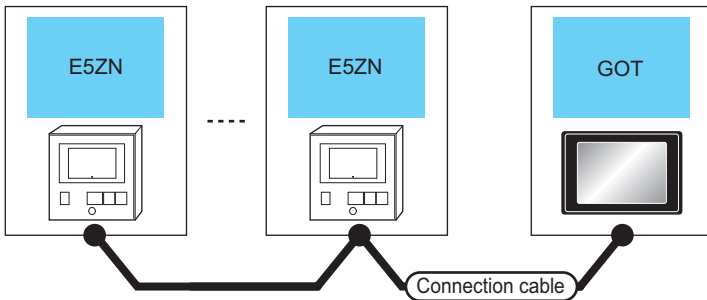
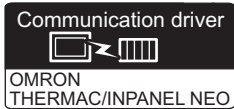


5

| Temperature controller | Connection cable 1) | | Interface converter ^{*1} | | Connection cable 2) | | GOT | | Number of connectable equipment | | | | | | |
|--|---|--|---|------------|--|--|--------------------|---|---------------------------------|-------|-------|-------|-------|--|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | | Model | | | | | |
| E5ZN | (User preparing) Page 291 RS-485 connection diagram 1) | 500m | K3SC-10 | RS-232 | (User preparing) Page 287 RS-232 connection diagram 2) | 15m | - (Built into GOT) | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> <tr> <td>GT 21</td> <td>GS 25</td> </tr> <tr> <td>GS 21</td> <td></td> </tr> </table> | GT 27 | GT 25 | GT 21 | GS 25 | GS 21 | | 16 temperature controllers for 1 GOT |
| | | | | | | | GT 27 | GT 25 | | | | | | | |
| | | | | | | | GT 21 | GS 25 | | | | | | | |
| | | | | | GS 21 | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> </table> | GT 27 | GT 25 | | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | |
| GT10-C02H-6PT09P ^{*2} | <table border="1"> <tr> <td>GT 21</td> <td>GT 03P</td> </tr> <tr> <td>GT 04P</td> <td>GT 04P</td> </tr> <tr> <td>R4</td> <td>R2</td> </tr> </table> | GT 21 | GT 03P | GT 04P | GT 04P | R4 | R2 | | | | | | | | |
| GT 21 | GT 03P | | | | | | | | | | | | | | |
| GT 04P | GT 04P | | | | | | | | | | | | | | |
| R4 | R2 | | | | | | | | | | | | | | |
| (User preparing) Page 288 RS-232 connection diagram 4) | 15m | - (Built into GOT) | <table border="1"> <tr> <td>GT 21</td> <td>GT 03P</td> </tr> <tr> <td>GT 04P</td> <td>GT 04P</td> </tr> <tr> <td>R4</td> <td>R2</td> </tr> </table> | GT 21 | GT 03P | GT 04P | GT 04P | R4 | R2 | | | | | | |
| GT 21 | GT 03P | | | | | | | | | | | | | | |
| GT 04P | GT 04P | | | | | | | | | | | | | | |
| R4 | R2 | | | | | | | | | | | | | | |

*1 The interface converter is a product manufactured by OMRON Corporation. For details of the product, contact OMRON Corporation.
 *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
 *3 GT25-W, GT2505-V does not support the option device.

When connecting to multiple temperature controllers



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|------------------------|--------------------|--|---------------|---|--------------|--------------------------------------|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| E5ZN | RS-485 | Page 292 RS-485 connection diagram 2) | 500m | FA-LTBGT2R4CBL05 (0.5m) FA-LTBGT2R4CBL10 (1m) FA-LTBGT2R4CBL20 (2m) | | 15 temperature controllers for 1 GOT | |
| | | | | | *2 | | |
| | | Page 293 RS-485 connection diagram 3) | 500m | GT15-RS4-TE | | | *1*2 |
| | | Page 296 RS-485 connection diagram 6) | 500m | GT14-RS2T4-9P*3 | | | *4 |
| | | Page 294 RS-485 connection diagram 4) | 500m | - (Built into GOT) | | | *5 |
| | | | GT10-C02H-9SC | | | | |
| | | Page 295 RS-485 connection diagram 5) | | - (Built into GOT) | | | |

*1 Not available to GT25-W.

*2 Not available to GT2505-V.

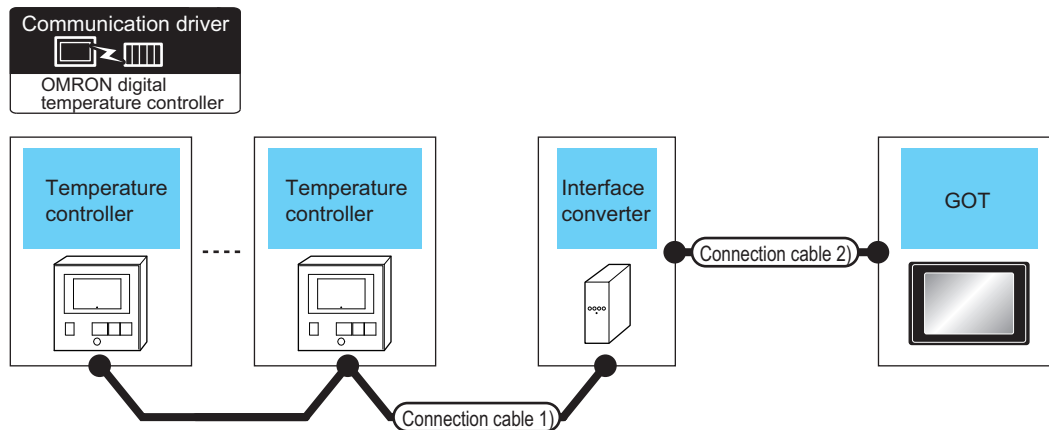
*3 Mount it on the RS-232 interface (GOT built-in).

*4 Only available to GT2505-V.

*5 Only available to GS21-W-N for GS21.

Connecting to the E5□C series, E5□D series

When connecting to multiple temperature controllers (via interface converter)



5

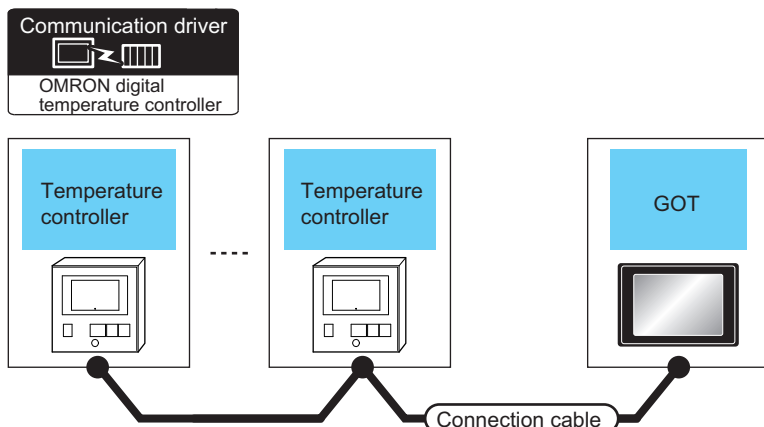
| Temperature controller | Connection cable 1) | | Interface converter* ¹ | | Connection cable 2) | | GOT | | Number of connectable equipment | |
|--|--|--|-----------------------------------|------------|--|--|---------------|-------------------------------|---------------------------------|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device* ³ | | Model |
| E5CC(-T,-B) E5DC E5GC E5EC(-T,-B) E5AC(-T) | (User preparing) Page 291 RS-485 connection diagram 1) | 500m | K3SC-10 | RS-232 | (User preparing) Page 287 RS-232 connection diagram 2) | 15m | - | (Built into GOT) | | 32 temperature controllers for 1 GOT |
| | | | | | | | | GT15-RS2-9P | | |
| | | | | | | | | GT10-C02H-6PT9P* ² | | |
| E5CD(-B) E5ED(-B) | (User preparing) Page 288 RS-232 connection diagram 4) | | | | (User preparing) Page 287 RS-232 connection diagram 2) | 15m | - | (Built into GOT) | | |
| | | | | | | | | GT15-RS2-9P | | |



























*1 The interface converter is a product manufactured by OMRON Corporation. For details of the product, contact OMRON Corporation.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to multiple temperature controllers



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|--|--------------------|---|---------------|--|--|---|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| E5CC(-T,-B) E5DC E5GC E5EC(-T,-B) E5AC(-T) E5CD(-B) E5ED(-B) | RS-485 |  Page 292 RS-485 connection diagram 2) | 500m | FA-LTBGT2R4CBL05(0.5m) FA-LTBGT2R4CBL10(1m) FA-LTBGT2R4CBL20(2m) |    | 31 temperature controllers for 1 GOT | |
| | |  Page 293 RS-485 connection diagram 3) | 500m | GT15-RS4-TE |   | | *2 |
| | |  Page 296 RS-485 connection diagram 6) | 500m | GT14-RS2T4-9P ^{*3} |  | | *1*2 |
| | |  Page 294 RS-485 connection diagram 4) | 500m | - (Built into GOT) |       | | *4 |
| | |  Page 295 RS-485 connection diagram 5) | 500m | - (Built into GOT) |       | | *5 |
| E5CD-B E5ED-B | |  Page 294 RS-485 connection diagram 4) | 500m | GT15-RS4-9S |   | *1*2 | |

*1 Not available to GT25-W.

*2 Not available to GT2505-V.

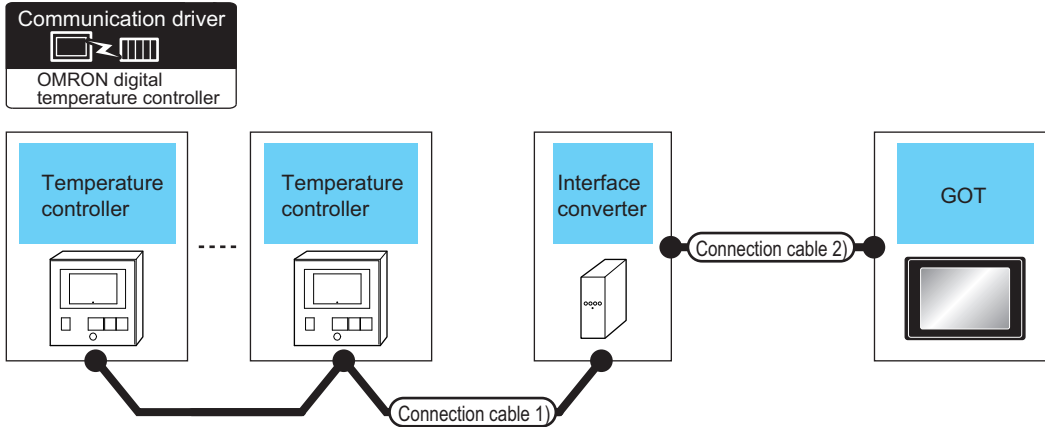
*3 Mount it on the RS-232 interface (GOT built-in).

*4 Only available to GT2505-V.

*5 Only available to GS21-W-N for GS21.

Connecting to the THERMAC R series

When connecting to multiple temperature controllers (via interface converter)

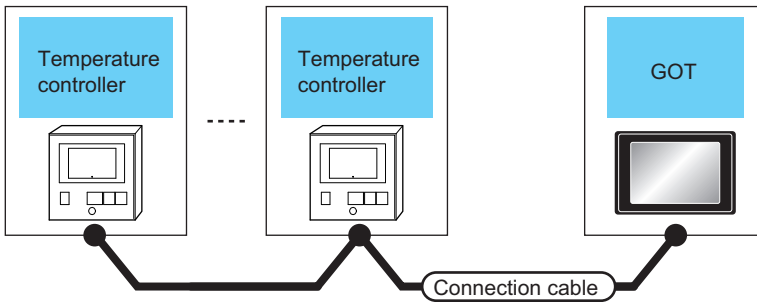
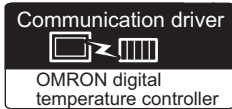


5

| Temperature controller | Connection cable 1) | | Interface converter*1 | | Connection cable 2) | | GOT | | Number of connectable equipment | | | | | | | | |
|------------------------|---|--|-----------------------|----------------------------------|---|-------------------|---|--|---------------------------------|----------------------|----------------------|----------------------|----------------------|-------|-------|--|--------------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | | | | | | | | | |
| E5AR(-T) E5ER(-T) | (User's manual) Page 291 RS-485 connection diagram 1) | 500m | K3SC-10 | RS-232 | (User's manual) Page 287 RS-232 connection diagram 2) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GT 21^{07W}</td></tr> <tr><td>GT 21^{05D}</td><td>GS 25</td></tr> <tr><td>GS 21</td><td></td></tr> </table> | GT 27 | GT 25 | GT 23 | GT 21 ^{07W} | GT 21 ^{05D} | GS 25 | GS 21 | | 32 temperature controllers for 1 GOT |
| GT 27 | GT 25 | | | | | | | | | | | | | | | | |
| GT 23 | GT 21 ^{07W} | | | | | | | | | | | | | | | | |
| GT 21 ^{05D} | GS 25 | | | | | | | | | | | | | | | | |
| GS 21 | | | | | | | | | | | | | | | | | |
| | | | | | | GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | | | |
| | | | | | | GT10-C02H-6PT9P*2 | <table border="1"> <tr><td>GT 21^{03P}</td><td>GT 21^{03P}</td></tr> <tr><td>GT 21^{04P}</td><td>GT 21^{04P}</td></tr> <tr><td>R4</td><td>R2</td></tr> </table> | GT 21 ^{03P} | GT 21 ^{03P} | GT 21 ^{04P} | GT 21 ^{04P} | R4 | R2 | | | | |
| GT 21 ^{03P} | GT 21 ^{03P} | | | | | | | | | | | | | | | | |
| GT 21 ^{04P} | GT 21 ^{04P} | | | | | | | | | | | | | | | | |
| R4 | R2 | | | | | | | | | | | | | | | | |
| | | | | | (User's manual) Page 288 RS-232 connection diagram 4) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 21^{04R}</td><td>GT 21^{04P}</td></tr> <tr><td>R2</td><td>R2</td></tr> </table> | GT 21 ^{04R} | GT 21 ^{04P} | R2 | R2 | | | | | |
| GT 21 ^{04R} | GT 21 ^{04P} | | | | | | | | | | | | | | | | |
| R2 | R2 | | | | | | | | | | | | | | | | |

*1 The interface converter is a product manufactured by OMRON Corporation. For details of the product, contact OMRON Corporation.
 *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
 *3 GT25-W, GT2505-V does not support the option device.

When connecting to multiple temperature controllers



| Temperature controller | | Connection cable | | GOT | | Number of connectable equipment | |
|------------------------|--------------------|--|---------------|--|------------------------------|---|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| E5AR(-T) E5ER(-T) | RS-485 | Page 292 RS-485 connection diagram 2) | 500m | FA-LTBGT2R4CBL05(0.5m) FA-LTBGT2R4CBL10(1m) FA-LTBGT2R4CBL20(2m) | | 31 temperature controllers for 1 GOT | |
| | | | | | *2 | | |
| | | Page 293 RS-485 connection diagram 3) | 500m | GT15-RS4-TE | | | *1*2 |
| | | Page 296 RS-485 connection diagram 6) | 500m | GT14-RS2T4-9P*3 | | | *4 |
| | | Page 294 RS-485 connection diagram 4) | 500m | - (Built into GOT) | | | *5 |
| | | | GT10-C02H-9SC | | | | |
| | | Page 295 RS-485 connection diagram 5) | | - (Built into GOT) | | | |

*1 Not available to GT25-W.

*2 Not available to GT2505-V.

*3 Mount it on the RS-232 interface (GOT built-in).

*4 Only available to GT2505-V.

*5 Only available to GS21-W-N for GS21.

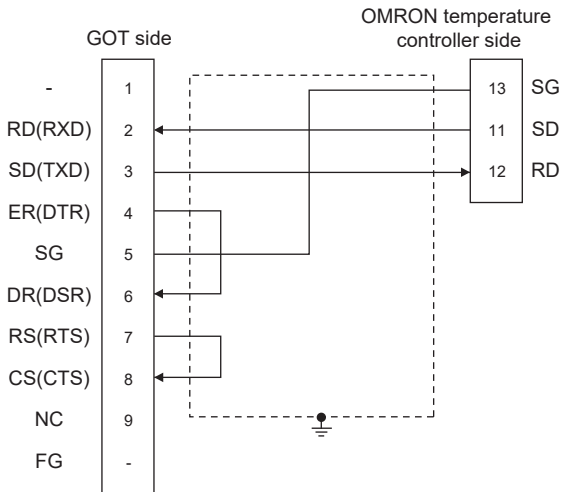
5.3 Connection Diagram

The following diagram shows the connection between the GOT and the controller.

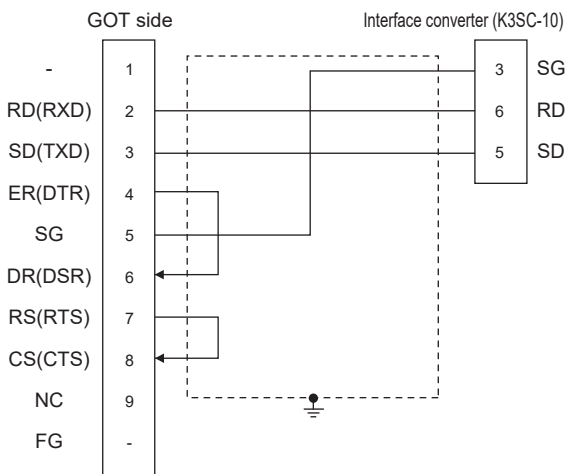
RS-232 cable

Connection diagram

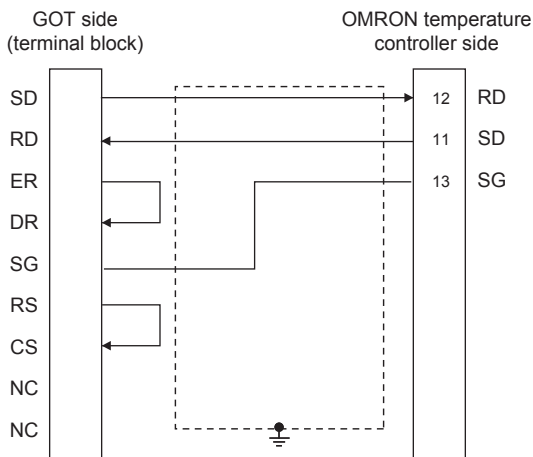
■RS-232 connection diagram 1)



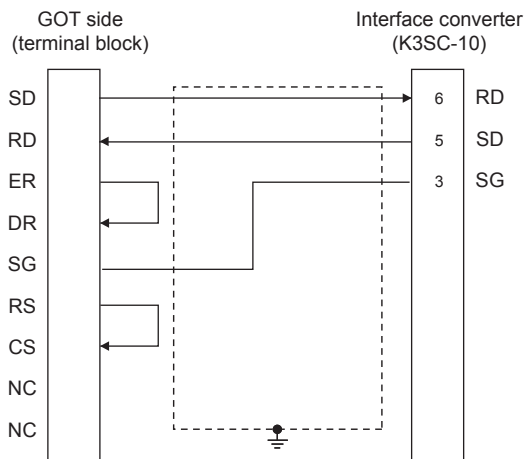
■RS-232 connection diagram 2)



■RS-232 connection diagram 3)



■RS-232 connection diagram 4)



Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 15m or less

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■OMRON temperature controller side connector

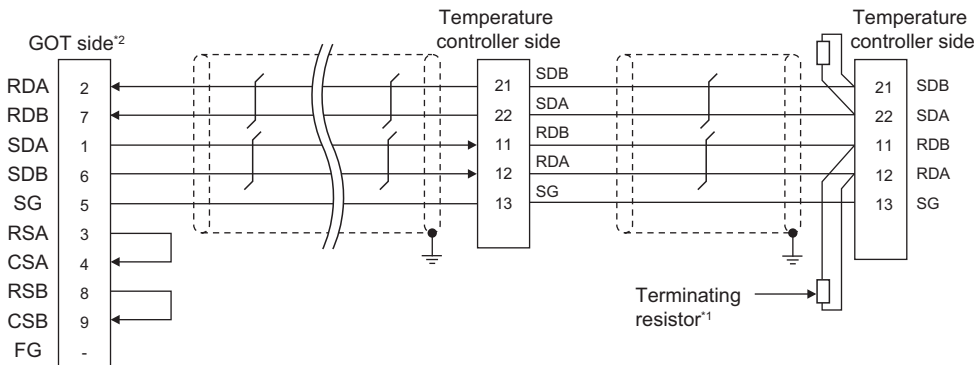
Use the connector compatible with the OMRON temperature controller.

For details, refer to the user's manual of the OMRON temperature controller.

RS-422 cable

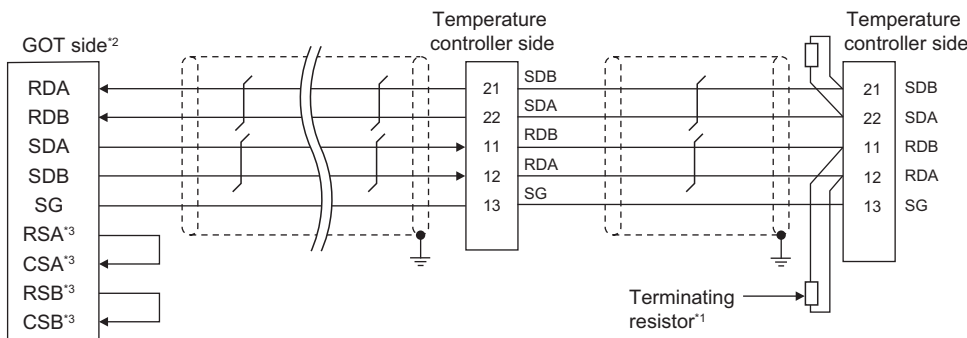
Connection diagram

■RS-422 connection diagram 1)



- *1 Terminating resistor of 240Ω 1/2W should be provided for a temperature controller which will be a terminal.
- *2 For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Enable".
For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 330 Ω.
For GS21-W, since the terminating resistor is fixed to 330 Ω, no setting is required for the terminating resistor.
☞ Page 62 Terminating resistors of GOT

■RS-422 connection diagram 2)



- *1 Terminating resistor of 240Ω 1/2W should be provided for a temperature controller which will be a terminal.
- *2 Set the terminating resistor of GOT side, which will be a terminal, to "330Ω".
☞ Page 62 Terminating resistors of GOT
- *3 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

Precautions when preparing a cable

■Cable length

The length of the RS-422 cable must be 500m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■OMRON temperature controller side connector

Use the connector compatible with the OMRON temperature controller.


For details, refer to the user's manual of the OMRON temperature controller.

Setting terminating resistors

■GOT side

Set the terminating resistor setting switch of the GOT main unit to "100 OHM".

For details of terminating resistor settings, refer to the following.

 Page 62 Terminating resistors of GOT

■OMRON temperature controller side

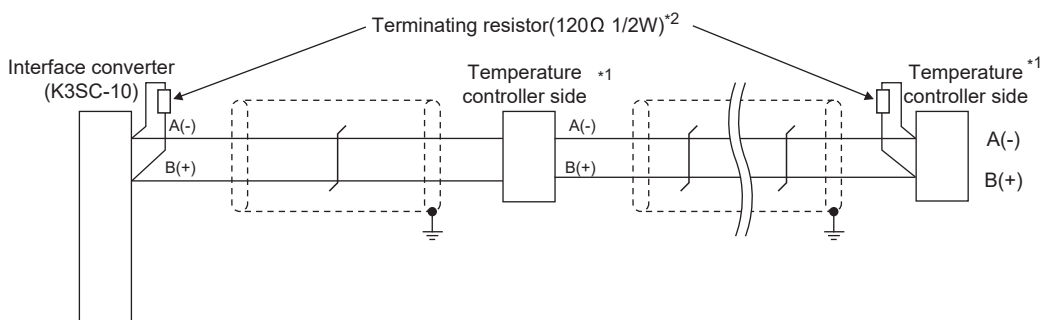
When connecting a OMRON temperature controller to the GOT, the terminating resistor must be connected to the OMRON temperature controller.

 User's Manual of the OMRON temperature controller

RS-485 cable

Connection diagram

■RS-485 connection diagram 1)

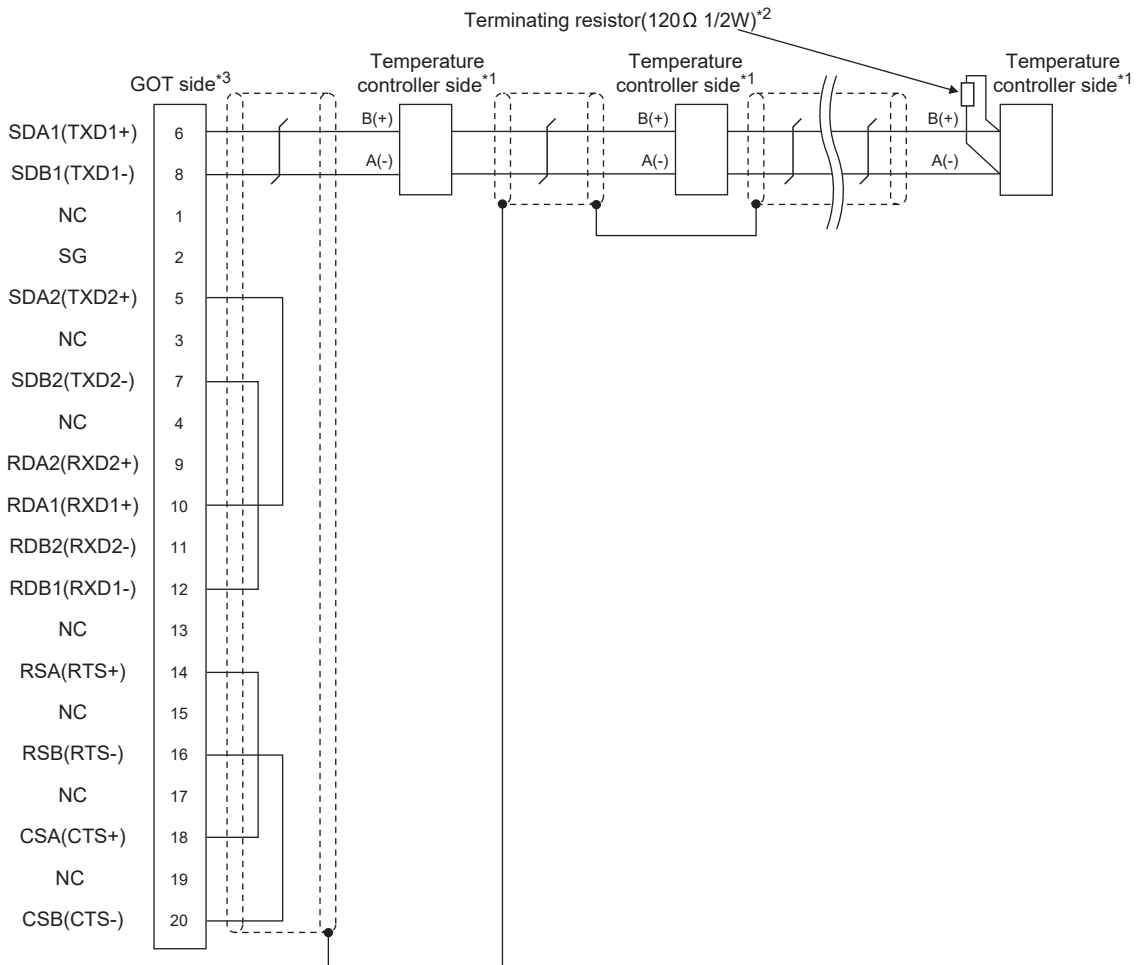


*1 Pin No. of temperature controller differs depending on the model.Refer to the following.

*2 Terminating resistor should be provided for a temperature controller and an interface converter which will be terminating resistors.

| Signal name | Model of temperature controller | | | | | | | | Interface converter (K3SC-10) |
|-------------|--|---------|---------|----------------------------------|------------------|---------|---------|----------------------|-------------------------------|
| | E5AN(-H,-HT) E5EN(-H,-HT) E5CN(-H,-HT) | E5GN | E5ZN | E5CC(-T) E5EC(-T) E5AC(-T) | E5CC-B E5EC-B | E5DC | E5GC | E5AR(-T) E5ER(-T) | |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | |
| A(-) | 12 | 6 | 24 | 14 | 19 or 20 | 4 | 8 | 2 | 8 |
| B(+) | 11 | 5 | 23 | 13 | 17 or 18 | 3 | 7 | 1 | 11 |

■RS-485 connection diagram 2)



*1 Pin No. of temperature controller differs depending on the model.Refer to the following.

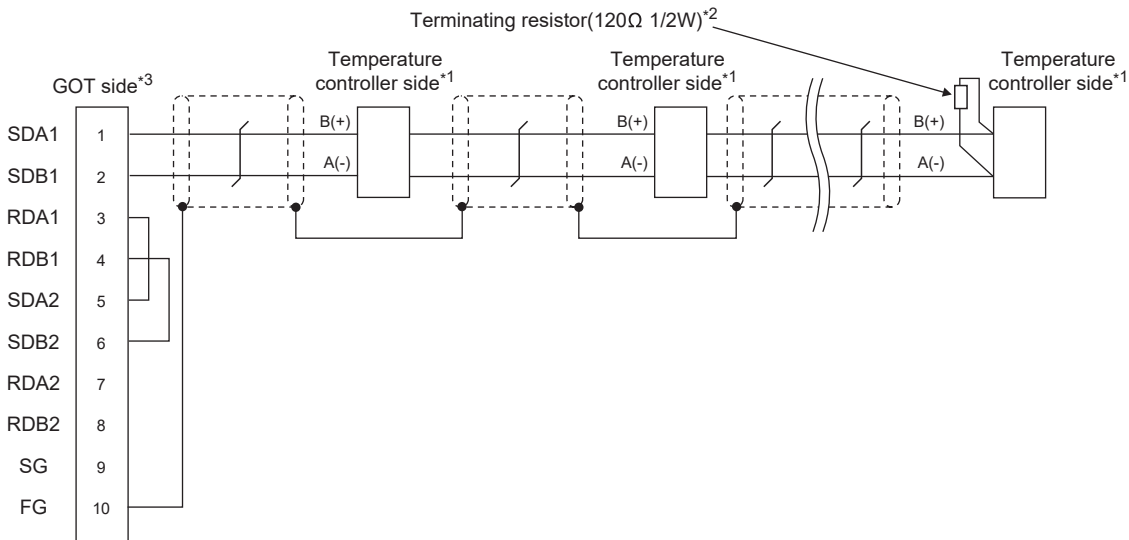
*2 Terminating resistor should be provided for a temperature controller and an interface converter which will be terminating resistors.

*3 Set the terminating resistor of GOT side, which will be a terminal, to "Enable".

☞ Page 62 Terminating resistors of GOT

| Signal name | Model of temperature controller | | | | | | | |
|-------------|--|---------|---------|--|--------------------------------------|---------|---------|----------------------|
| | E5AN(-H,-HT) E5EN(-H,-HT) E5CN(-H,-HT) | E5GN | E5ZN | E5CC(-T) E5EC(-T) E5AC(-T) E5CD E5ED | E5CC-B E5EC-B E5CD-B E5ED-B | E5DC | E5GC | E5AR(-T) E5ER(-T) |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| A(-) | 12 | 6 | 24 | 14 | 19 or 20 | 4 | 8 | 2 |
| B(+) | 11 | 5 | 23 | 13 | 17 or 18 | 3 | 7 | 1 |

■RS-485 connection diagram 3)



*1 Pin No. of temperature controller differs depending on the model. Refer to the following.

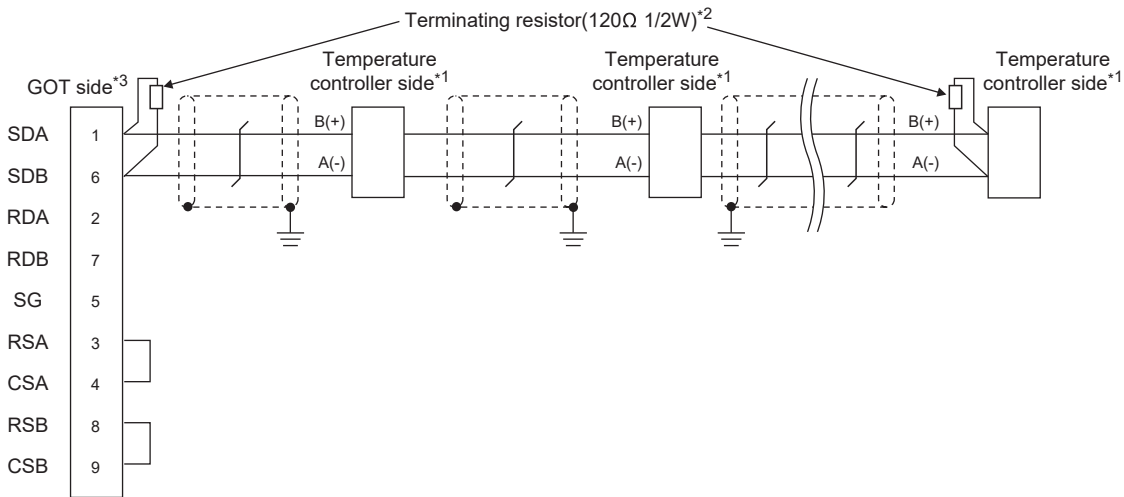
*2 Terminating resistor should be provided for a temperature controller and an interface converter which will be terminating resistors.

*3 Set the terminating resistor of GOT side, which will be a terminal, to "Enable".

☞ Page 62 Terminating resistors of GOT

| Signal name | Model of temperature controller | | | | | | | |
|-------------|--|---------|---------|--|--------------------------------------|---------|---------|----------------------|
| | E5AN(-H,-HT) E5EN(-H,-HT) E5CN(-H,-HT) | E5GN | E5ZN | E5CC(-T) E5EC(-T) E5AC(-T) E5CD E5ED | E5CC-B E5EC-B E5CD-B E5ED-B | E5DC | E5GC | E5AR(-T) E5ER(-T) |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| A(-) | 12 | 6 | 24 | 14 | 19 or 20 | 4 | 8 | 2 |
| B(+) | 11 | 5 | 23 | 13 | 17 or 18 | 3 | 7 | 1 |

■RS-485 connection diagram 4)



*1 Pin No. of temperature controller differs depending on the model. Refer to the following.

*2 Terminating resistor should be provided for a temperature controller and an interface converter which will be terminating resistors.

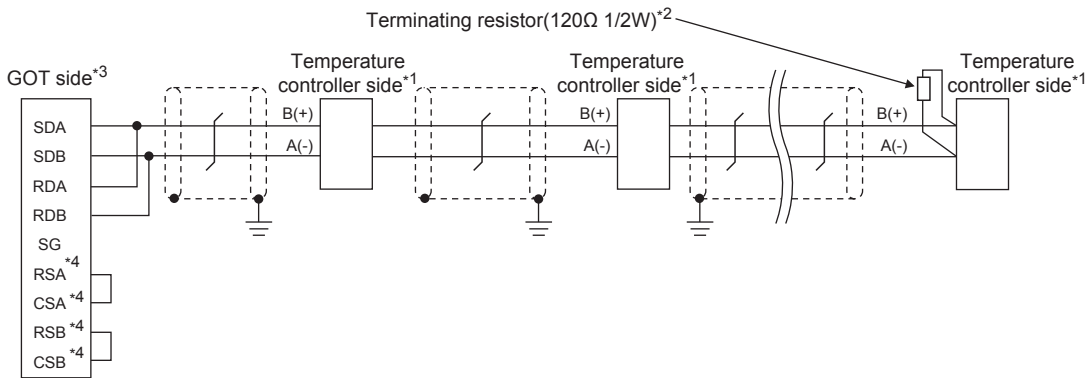
*3 For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Enable".

For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 110 Ω.

☞ Page 62 Terminating resistors of GOT

| Signal name | Model of temperature controller | | | | | | | |
|-------------|--|---------|---------|--|--------------------------------------|---------|---------|----------------------|
| | E5AN(-H,-HT) E5EN(-H,-HT) E5CN(-H,-HT) | E5GN | E5ZN | E5CC(-T) E5EC(-T) E5AC(-T) E5CD E5ED | E5CC-B E5EC-B E5CD-B E5ED-B | E5DC | E5GC | E5AR(-T) E5ER(-T) |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| A(-) | 12 | 6 | 24 | 14 | 19 or 20 | 4 | 8 | 2 |
| B(+) | 11 | 5 | 23 | 13 | 17 or 18 | 3 | 7 | 1 |

■RS-485 connection diagram 5)



*1 Pin No. of temperature controller differs depending on the model. Refer to the following.

*2 Terminating resistor should be provided for a temperature controller and an interface converter which will be terminating resistors.

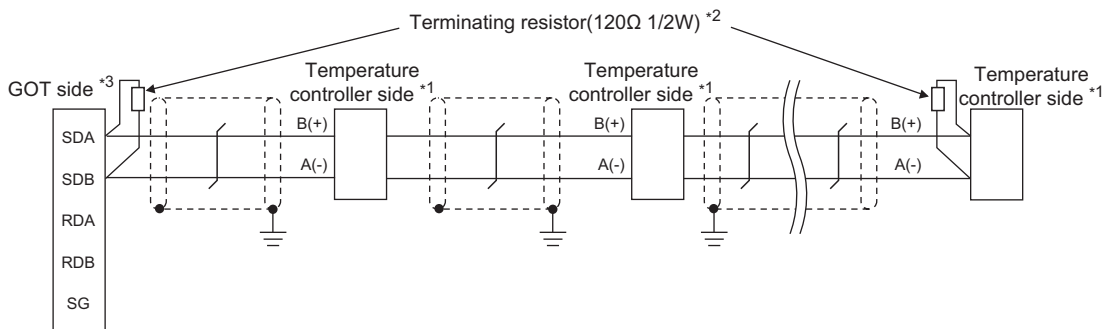
*3 Set the terminating resistor of GOT side, which will be a terminal, to "110Ω".

☞ Page 62 Terminating resistors of GOT

| Signal name | Model of temperature controller | | | | | | | |
|-------------|--|---------|---------|--|--------------------------------------|---------|---------|----------------------|
| | E5AN(-H,-HT) E5EN(-H,-HT) E5CN(-H,-HT) | E5GN | E5ZN | E5CC(-T) E5EC(-T) E5AC(-T) E5CD E5ED | E5CC-B E5EC-B E5CD-B E5ED-B | E5DC | E5GC | E5AR(-T) E5ER(-T) |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| A(-) | 12 | 6 | 24 | 14 | 19 or 20 | 4 | 8 | 2 |
| B(+) | 11 | 5 | 23 | 13 | 17 or 18 | 3 | 7 | 1 |

*4 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS-485 connection diagram 6)



*1 Pin No. of temperature controller differs depending on the model. Refer to the following.

| Signal name | Model of temperature controller | | | | | | | |
|-------------|--|---------|---------|--|--------------------------------------|---------|---------|----------------------|
| | E5AN(-H,-HT) E5EN(-H,-HT) E5CN(-H,-HT) | E5GN | E5ZN | E5CC(-T) E5EC(-T) E5AC(-T) E5CD E5ED | E5CC-B E5EC-B E5CD-B E5ED-B | E5DC | E5GC | E5AR(-T) E5ER(-T) |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| A(-) | 12 | 6 | 24 | 14 | 19 or 20 | 4 | 8 | 2 |
| B(+) | 11 | 5 | 23 | 13 | 17 or 18 | 3 | 7 | 1 |

*2 Terminating resistor should be provided for a temperature controller and the GOT which will be terminating resistors.

*3 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adaptor as shown below.

2-wire/4-wire: 2-wire (1Pair)

Terminating resistor: OPEN

☞ Page 68 Setting the RS-232/485 signal conversion adaptor

Precautions when preparing a cable

■Cable length

The length of the RS-485 cable must be 500m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■OMRON temperature controller side connector

Use the connector compatible with the OMRON temperature controller.

For details, refer to the user's manual of the OMRON temperature controller.

Setting terminating resistors

■GOT side

Set the terminating resistor setting switch of the GOT main unit to "100 OHM".

For details of terminating resistor settings, refer to the following.

☞ Page 62 Terminating resistors of GOT

■OMRON temperature controller side

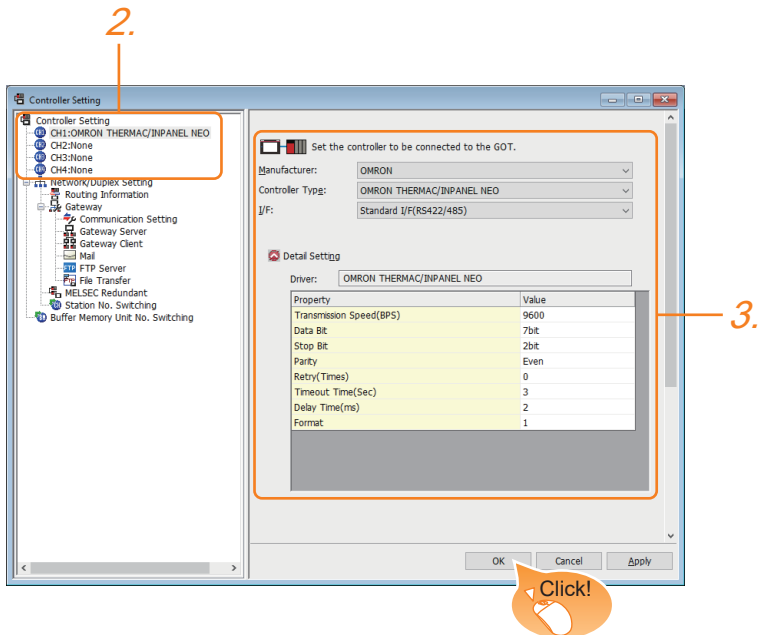
When connecting a OMRON temperature controller to the GOT, the terminating resistor must be connected to the OMRON temperature controller.

☞ User's Manual of the OMRON temperature controller

5.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Select the following items and the detail setting is displayed.
 - [Manufacturer]: [OMRON]
 - [Controller Type]: Select one of the following items according to the controller to be connected.

| Series | Model of temperature controller | Controller Type |
|-------------|---|---|
| THERMAC NEO | E5AN, E5EN, E5CN, E5GN | OMRON THERMAC/INPANEL NEO or OMRON digital temperature controller |
| | E5AN-H, E5CN-H, E5EN-H, E5AN-HT, E5CN-HT, E5EN-HT | OMRON digital temperature controller |
| INPANEL NEO | E5ZN | OMRON THERMAC/INPANEL NEO or OMRON digital temperature controller |
| E5□C | E5CC(-T,-B), E5DC, E5GC, E5EC(-T,-B), E5AC(-T) | OMRON digital temperature controller |
| E5□D | E5CD(-B), E5ED(-B) | OMRON digital temperature controller |
| THERMAC R | E5AR(-T), E5ER(-T) | OMRON digital temperature controller |

- [I/F]: Interface to be used
- [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 298 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].
For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

OMRON THERMAC/INPANEL NEO

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 7 bit |
| Stop Bit | 2 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 2 |
| Format | 1 |

| Item | Description | Range |
|--------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 7bits) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 2bits) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 3 to 30sec |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 2ms) | 0 to 300 (ms) |
| Format | Select the communication format. (Default: 1) format 1: only continuous access format 2: continuous and random access | 1, 2 |

OMRON Digital temperature controller

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 7bit |
| Stop Bit | 2bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Host Address | 1 |
| Delay Time(ms) | 2 |
| Format | 2 |

| Item | Description | Range |
|--------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 7bits) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 2bits) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address | Specify the host address (station No. of the GOT to which the temperature controller is connected) in the connected network. (Default: 1) | 0 to 99 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 2ms) | 0 to 300 (ms) |
| Format | Select the communication format. (Default: 2) format 1: only continuous access format 2: continuous and random access | 1, 2 |

Point

- Delay Time

When connecting to the temperature controller E5ZN, set the delay time to 5ms or more.

- Format setting

Make sure to select format 1 when connecting with previous models (manufactured in December 2007 or before) of the THERMAC NEO series (E5AN, E5CN, E5EN, E5GN).


For the continuous access and random access of the temperature controller, refer to the following manual.

 User's Manual of the OMRON temperature controller

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

5.5 Temperature Controller Side Setting



OMRON temperature controller

For details of OMRON temperature controller, refer to the following manual.

User's Manual of the OMRON temperature controller

| Model name | | Refer to |
|------------------------|--|--|
| Temperature controller | E5AN, E5EN, E5CN, E5GN | Page 300 Connecting E5AN, E5EN, E5CN, E5GN |
| | E5CN(-H,-HT), E5AN(-H,-HT), E5EN(-H,-HT) | Page 300 Connecting to E5CN(-H,-HT), E5AN(-H,-HT), E5EN(-H,-HT) |
| | E5ZN | Page 301 Connecting E5ZN |
| | E5CC(-T,-B), E5DC, E5GC, E5EC(-T,-B), E5AC(-T) | Page 301 Connecting E5CC(-T,-B), E5DC, E5GC, E5EC(-T,-B), E5AC(-T) |
| | E5CD(-B), E5ED(-B) | Page 301 Connecting E5CD(-B), E5ED(-B) |
| | E5AR(-T), E5ER(-T) | Page 302 Connecting E5AR(-T), E5ER(-T) |
| Interface converter | K3SC-10 | Page 302 Connection to interface converter (K3SC-10) |

Connecting E5AN, E5EN, E5CN, E5GN

Set the communication data by operating the key of the temperature controller.

| Item | Set value |
|---------------------------------|---------------------|
| Protocol | CompoWay/F (Sysway) |
| Transmission speed*1 | 9600bps, 19200bps |
| Data bit*1 | 8 bits, 7 bits |
| Parity bit*1 | Odd, Even, None |
| Stop bit*1 | 1bit, 2bits |
| Communication unit No.*2 | 0 to 99 |
| CMWT (Communications writing)*3 | ON |

*1 Adjust the settings with GOT settings.

*2 Select the communication unit No. without overlapping with that of other units.

*3 When changing the device values of the temperature controller from the GOT, turn ON CMWT (Communications writing) in advance.

Connecting to E5CN(-H,-HT), E5AN(-H,-HT), E5EN(-H,-HT)

Set the communication data by operating the key of the temperature controller.

| Item | Set value |
|---------------------------------|---------------------------------------|
| Protocol | CompoWay/F (Sysway) |
| Transmission speed*1 | 9600bps, 19200bps, 38400bps, 57600bps |
| Data bit*1 | 8 bits, 7 bits |
| Parity bit*1 | Odd, Even, None |
| Stop bit*1 | 1bit, 2bits |
| Communication unit No.*2 | 0 to 99 |
| CMWT (Communications writing)*3 | ON |

*1 Adjust the settings with GOT settings.

*2 Select the communication unit No. without overlapping with that of other units.

*3 When changing the device values of the temperature controller from the GOT, turn ON CMWT (Communications writing) in advance.

Connecting E5ZN

Set the communication data by operating the key of the temperature controller.

| Item | Set value |
|---|---------------------|
| Protocol | CompoWay/F (Sysway) |
| Transmission speed* ¹ | 9600bps, 38400bps |
| Data bit* ¹ | 8 bits, 7 bits |
| Parity bit* ¹ | Odd, Even, None |
| Stop bit* ¹ | 1bit, 2bits |
| Communication unit No.* ² | 0 to 15 |
| CMWT (Communications writing)* ³ | ON |

*¹ Adjust the settings with GOT settings.

*² Select the communication unit No. without overlapping with that of other units.

*³ When changing the device values of the temperature controller from the GOT, turn ON CMWT (Communications writing) in advance.

Connecting E5CC(-T,-B), E5DC, E5GC, E5EC(-T,-B), E5AC(-T)

Set the communication data by operating the key of the temperature controller.

| Item | Set value |
|---|------------------------------------|
| Protocol | CompoWay/F (Sysway) |
| Transmission speed* ¹ | 9600bps,19200bps,38400bps,57600bps |
| Data bit* ¹ | 8 bits, 7 bits |
| Parity bit* ¹ | Odd, Even, None |
| Stop bit* ¹ | 1bit, 2bits |
| Communication unit No.* ² | 0 to 99 |
| CMWT (Communications writing)* ³ | ON |

*¹ Adjust the settings with GOT settings.

*² Select the communication unit No. without overlapping with that of other units.

*³ When changing the device values of the temperature controller from the GOT, turn ON CMWT (Communications writing) in advance.

Connecting E5CD(-B), E5ED(-B)

Configure the communication data settings by operating the keys of the temperature controller.

| Item | Set value |
|---|--|
| Protocol | CompoWay/F (Sysway) |
| Transmission speed* ¹ | 9600bps,19200bps,38400bps,57600bps,115200bps |
| Data bit* ¹ | 8 bits, 7 bits |
| Parity bit* ¹ | Odd, Even, None |
| Stop bit* ¹ | 1 bit, 2 bits |
| Communication unit No.* ² | 0 to 99 |
| CMWT (Communications writing)* ³ | ON |

*¹ Adjust the settings with GOT settings.

*² Select the communication unit No. without overlapping with that of other units.

*³ When changing the device values of the temperature controller from the GOT, turn on CMWT (Communications writing) in advance.

Connecting E5AR(-T), E5ER(-T)

Set the communication data by operating the key of the temperature controller.

| Item | Set value |
|---------------------------------|---------------------------------------|
| Protocol | CompoWay/F (Sysway) |
| Transmission speed*1 | 9600bps, 19200bps, 38400bps, 57600bps |
| Data bit*1 | 8 bits, 7 bits |
| Parity bit*1 | Odd, Even, None |
| Stop bit*1 | 1bit, 2bits |
| Communication unit No.*2 | 0 to 99 |
| CMWT (Communications writing)*3 | ON |

*1 Adjust the settings with GOT settings.

*2 Select the communication unit No. without overlapping with that of other units.

*3 When changing the device values of the temperature controller from the GOT, turn ON CMWT (Communications writing) in advance.

Connection to interface converter (K3SC-10)

Communication settings

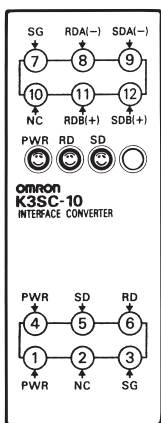
Make the communication settings by operating the DIP switch of the temperature controller.

| Item | Set value |
|----------------------|--------------------|
| Transmission speed*1 | 19200bps, 38400bps |
| Data bit*1 | 7 bits, 8 bits |
| Parity bit*1 | Odd, Even, None |
| Stop bit*1 | 1bit, 2bits |
| Communication Type | RS-232↔RS485 |
| Echo back*2 | With, Without |

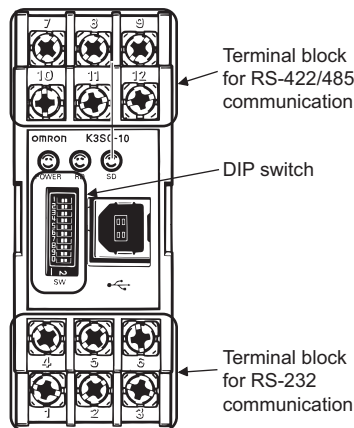
*1 Adjust the settings with GOT settings.

*2 Set to "Without".

Settings by DIP switch

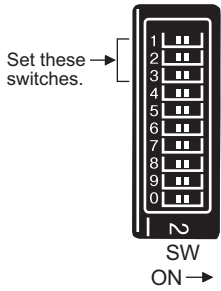


Front of K3SC-10 body



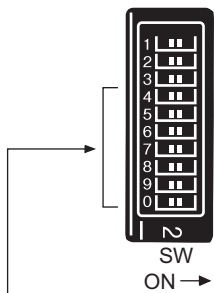
Inside of K3SC-10 body
(When removing the front cover)

■Transmission speed settings



| Transmission speed (bps) | Switch No. | | |
|--------------------------|------------|-----|-----|
| | 1 | 2 | 3 |
| 1200 | ON | OFF | OFF |
| 2400 | OFF | ON | OFF |
| 4800 | ON | ON | OFF |
| 9600 | OFF | OFF | OFF |
| 19200 | ON | OFF | ON |
| 38400 | OFF | ON | ON |

■Settings of data length, parity bit, stop bit, master/slave device and echoback



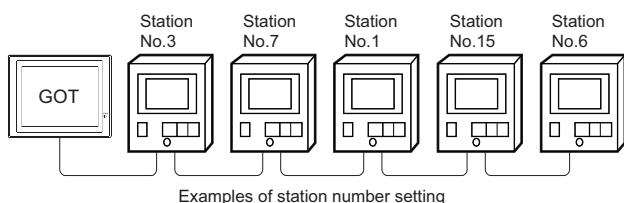
Set these switches.

| Setting item | Set value | Switch No. | | | | | | | |
|--------------------|--------------|------------|-----|-----|-----|-----|-----|---|-----|
| | | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| Data bit | 7bits | OFF | | | | | | | |
| | 8bits | ON | | | | | | | |
| Stop bit | 2bits | | OFF | | | | | | |
| | 1bit | | ON | | | | | | |
| Parity | Even | | | OFF | OFF | | | | |
| | Odd | | | ON | OFF | | | | |
| | None | | | OFF | ON | | | | |
| Communication Type | RS232↔RS422 | | | | | OFF | ON | | |
| | RS-232↔RS485 | | | | | OFF | OFF | | |
| Echo back | Without | | | | | | | | OFF |
| | With | | | | | | | | ON |

Station No. settings

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.



Direct specification

When setting the device, specify the station number of the temperature controller of which data is to be changed.

| Model name | Specification range |
|------------------------|---------------------|
| E5AN, E5EN, E5CN, E5GN | 0 to 99 |
| E5ZN | 0 to 15 |

Indirect specification

When setting the device, indirectly specify the station number of the temperature controller of which data is to be changed using the 16-bit GOT internal data register (GD10 to GD25).

When specifying the station No. from 100 to 115 on GT Designer3, the value of GD10 to GD25 compatible to the station No. specification will be the station No. of the temperature controller.

| Specification station NO. | Compatible device | Setting range |
|---------------------------|-------------------|--|
| 100 | GD10 | 0 to 99: For E5AN, E5EN, E5CN or E5GN 0 to 15: For E5ZN For the setting other than the above, error (dedicated device is out of range) will occur. |
| 101 | GD11 | |
| 102 | GD12 | |
| 103 | GD13 | |
| 104 | GD14 | |
| 105 | GD15 | |
| 106 | GD16 | |
| 107 | GD17 | |
| 108 | GD18 | |
| 109 | GD19 | |
| 110 | GD20 | |
| 111 | GD21 | |
| 112 | GD22 | |
| 113 | GD23 | |
| 114 | GD24 | |
| 115 | GD25 | |

All station specification

Target station differs depending on write-in operation or read-out operation.

- For write-in operation, all station will be a target.
- For read-out operation, only one station will be a target.

5.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

📖 Page 640 OMRON equipment ([OMRON THERMAC/INPANEL NEO])

📖 Page 644 OMRON equipment ([OMRON Digital Temperature Controller])

5.7 Precautions

Station number setting of the temperature controller system

Make sure to establish temperature controller system with No.1 station.

GOT clock control

Since the temperature controller does not have a clock function, the settings of [time adjusting] or [Broadcast] by GOT clock control will be disabled.

Disconnecting some of multiple connected equipment

The GOT can disconnect some of multiple connected equipment by setting GOT internal device. For example, the faulty station where a communication timeout error occurs can be disconnected from connected equipment.

For details of GOT internal device setting, refer to the following manual.

📖 GT Designer3 (GOT2000) Screen Design Manual

MEMO

6 KEYENCE PLC

- Page 307 Connectable Model List
- Page 308 Serial Connection
- Page 341 Ethernet Connection
- Page 348 Settable Device Range

6.1 Connectable Model List

The following table shows the connectable models.

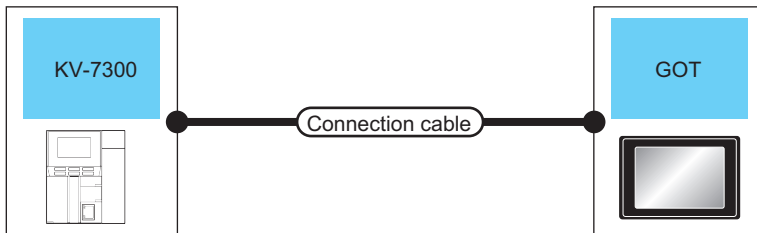
| Series | Model name | Clock | Communication Type | Connectable GOT *1 | Refer to |
|---------|--|-------|--------------------|-------------------------------------|--|
| KV-8000 | KV-8000 | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 308 Connecting to KV-8000 or KV-7000 series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | | | Ethernet | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 341 Ethernet connection |
| KV-7000 | KV-7500 KV-7300 | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 308 Connecting to KV-8000 or KV-7000 series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | | | Ethernet | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 341 Ethernet connection |
| KV-5000 | KV-5500 KV-5000 | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 312 Connecting to KV-5000 series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | | | Ethernet | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 341 Ethernet connection |
| KV-3000 | KV-3000 | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 314 Connecting to KV-3000 series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | | | Ethernet | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 341 Ethernet connection |
| KV-1000 | KV-1000 | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 317 Connecting to KV-1000 series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | | | Ethernet | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 341 Ethernet connection |
| KV-700 | KV-700 | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 320 Connecting to KV-700 series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | | | Ethernet | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 341 Ethernet connection |
| KV Nano | KV-N14□□ | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 323 Connecting to KV Nano series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | KV-N24□□ KV-N40□□ KV-N60□□ KV-NC32T | ○ | RS-232 | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 323 Connecting to KV Nano series |
| | | | RS-422 | | |
| | | | RS-485 | | |
| | | | Ethernet | GT 27 GT 25 GT 23 GT 21 GS 25 GS 21 | ☞ Page 341 Ethernet connection |

*1 For the RS-485 connection of GS21-W, use the RS-422 interface.

6.2 Serial Connection

Connecting to KV-8000 or KV-7000 series

When connecting to a PLC

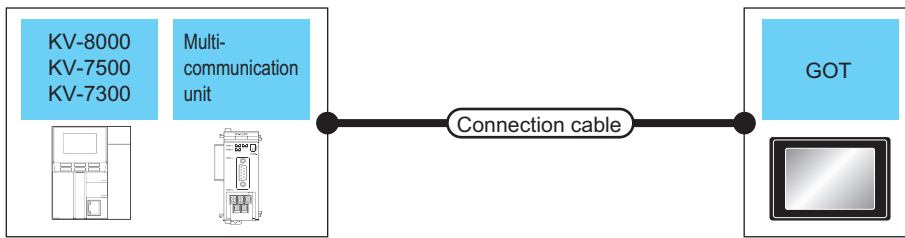


| PLC | | Connection cable | | GOT | | Number of connectable equipment | |
|------------|--------------------|---|---------------|-----------------------------|-------------------------------|---------------------------------|--|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | | |
| KV-7300 | RS-232 | GT09-C30R21101-6P or RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*1} | | |
| | | RS-232 connection diagram 4) | 15m | - (Built into GOT) | | | |










































*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.













*2 GT25-W, GT2505-V does not support the option device.

When connecting to multi-communication unit



| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|-------------------------------|--------------------------------------|--------------------|---|--------------------|--------------------|-------------------|--------------------------------------|--|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | | |
| KV-8000 KV-7500 KV-7300 | KV-L20V (port 1) KV-L21V (port 1) | RS-232 | GT09-C30R21102-9S(3m) or RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | RS-232 connection diagram 5) | | 15m | - (Built into GOT) | | | | |
| | KV-L20V (port 2) KV-L21V (port 2) | | GT09-C30R21103-3T(3m) or RS-232 connection diagram 3) | 15m | - (Built into GOT) | | | |
| | | | | | | GT15-RS2-9P | | |
| GT10-C02H-6PT9P*2 | | | | | | | | |
| RS-232 connection diagram 6) | 15m | - (Built into GOT) | | | | | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment | |
|--------------------------------------|----------------------------|---|---|--|--|--|--------------------------------------|--|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | | |
| KV-8000 KV-7500 KV-7300 | KV-XL202 | RS-232 |  RS-232 connection diagram 9) | 15m | - (Built into GOT) |     | 1 GOT for 1 multi-communication unit | |
| | | | | | GT15-RS2-9P |  | | |
| | | | | | GT10-C02H-6PT9P*2 |   | | |
| | | |  RS-232 connection diagram 10) | 15m | - (Built into GOT) |  | | |
| KV-L20V (port 2) KV-L21V (port 2) | RS-422 | GT09-C30R41101-5T(3m) GT09-C100R41101-5T(10m) GT09-C200R41101-5T(20m) GT09-C300R41101-5T(30m) or  RS-422 connection diagram 1) | 500m | - (Built into GOT) |     | 1 GOT for 1 multi-communication unit | | |
| | | | | GT15-RS4-9S |  | | | |
| | | | | GT10-C02H-9SC |   | | | |
| KV-XL402 | RS-422 |  RS-422 connection diagram 2) | 500m | - (Built into GOT) |     | 1 GOT for 1 multi-communication unit | | |
| | | | |  RS-422 connection diagram 5) | 500m | | - (Built into GOT) |     |
| | | | | GT15-RS4-9S |  | | | |
| | | | | GT10-C02H-9SC |   | | | |
| KV-XL402 | RS-422 |  RS-422 connection diagram 5) | 500m | - (Built into GOT) |     | 1 GOT for 1 multi-communication unit | | |
| | | | |  RS-422 connection diagram 5) | 500m | | - (Built into GOT) |     |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|-------------------------------|--|--------------------|--|--------------------|---|---|--------------------------------------|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| KV-8000 KV-7500 KV-7300 | KV-L20V (port 2) KV-L21V (port 2) | RS-485 |  RS-485 connection diagram 1) | 500m | - (Built into GOT) |  | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |  | |
| |  RS-485 connection diagram 2) | | 500m | - (Built into GOT) |  | | |
| KV-XL402 | | RS-485 |  RS-485 connection diagram 5) | 500m | - (Built into GOT) |  | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |  | |
| | | |  RS-485 connection diagram 2) | 500m | - (Built into GOT) |  | |

*1 The multi-communication unit is a product manufactured by KEYENCE CORPORATION.

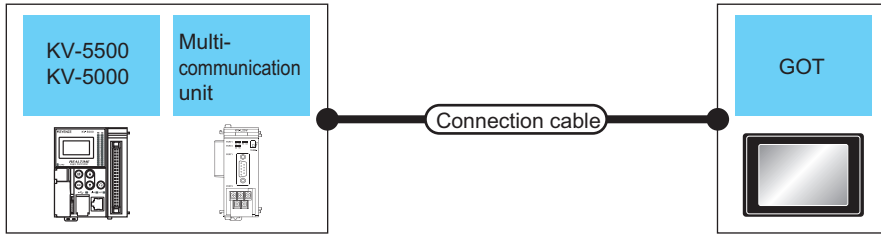
For details of the product, contact KEYENCE CORPORATION.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.













*3 GT25-W, GT2505-V does not support the option device.

*4 For GS21-W, use the RS-422 interface for connection.

Connecting to KV-5000 series



| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|---------------------|----------------------------|---|---|--------------------|--------------------|--------------|--------------------------------------|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| KV-5500 KV-5000 | KV-L20V (port 1) | RS-232 | GT09-C30R21102-9S(3m) or RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS2-9P | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | RS-232 connection diagram 5) | 15m | - (Built into GOT) | | |
| KV-L20V (port 2) | RS-232 | GT09-C30R21103-3T(3m) or RS-232 connection diagram 3) | 15m | - (Built into GOT) | | | |
| | | | | GT15-RS2-9P | | | |
| | | GT10-C02H-6PT9P*2 | | | | | |
| | | RS-232 connection diagram 6) | 15m | - (Built into GOT) | | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment | |
|--------------------|--|--------------------|--|---------------|-----------------------------|---|--------------------------------------|---|
| Model name | Multi-communication unit ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | |
| KV-5500 KV-5000 | KV-L20V (port 2) | RS-422 | GT09-C30R41101-5T(3m) GT09-C100R41101-5T(10m) GT09-C200R41101-5T(20m) GT09-C300R41101-5T(30m) or  RS-422 connection diagram 1) | 500m | - (Built into GOT) |  | 1 GOT for 1 multi-communication unit | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |  |
| | | |  RS-422 connection diagram 2) | 500m | - (Built into GOT) |  | | |
| | | RS-485 |  RS-485 connection diagram 1) | 500m | - (Built into GOT) |  | | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |  |
| | | |  RS-485 connection diagram 2) | 500m | - (Built into GOT) |  | | |

*1 The multi-communication unit is a product manufactured by KEYENCE CORPORATION.

For details of the product, contact KEYENCE CORPORATION.

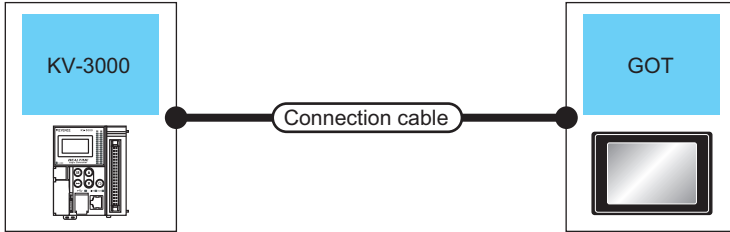
*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

*4 For GS21-W, use the RS-422 interface for connection.

Connecting to KV-3000 series

When connecting to a PLC



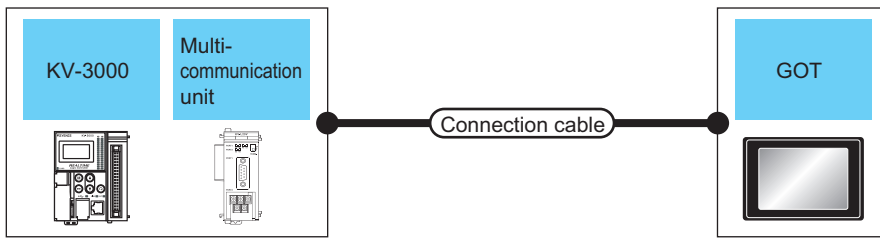
| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|------------|--------------------|--|------------------------|---------------|--------------------|-------------------|---------------------------------|--|
| Model name | Communication Type | Cable model Connection diagram number | Conversion connector*1 | Max. distance | Option device*3 | Model | | |
| KV-3000 | RS-232 | GT09-C30R21101-6P or (User preparing) RS-232 connection diagram 1) | - | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | | (User preparing) RS-232 connection diagram 4) | - | 15m | - (Built into GOT) | | | |
| | | OP-26487*1 | OP-26486 | 2.5m | - (Built into GOT) | | | |
| | | | | | | | | |

*1 The cable and conversion connector are products manufactured by KEYENCE CORPORATION.
For details of the product, contact KEYENCE CORPORATION.












*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to multi-communication unit



| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|------------|----------------------------|--------------------|---|---------------|--------------------|-------|--------------------------------------|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| KV-3000 | KV-L20V (port 1) | RS-232 | GT09-C30R21102-9S(3m) or RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | RS-232 connection diagram 5) | 15m | - (Built into GOT) | | |
| | KV-L20V (port 2) | RS-232 | GT09-C30R21103-3T(3m) or RS-232 connection diagram 3) | 15m | - (Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | RS-232 connection diagram 6) | 15m | - (Built into GOT) | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|---------------------|----------------------------|--|--|--------------------|---|---|---|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| KV-3000 | KV-L20V (port 2) | RS-422 | GT09-C30R41101-5T(3m) GT09-C100R41101-5T(10m) GT09-C200R41101-5T(20m) GT09-C300R41101-5T(30m) or  RS-422 connection diagram 1) | 500m | - (Built into GOT) |  | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |  | |
| | | |  RS-422 connection diagram 2) | 500m | - (Built into GOT) |  | |
| KV-L20V (port 2) | RS-485 |  RS-485 connection diagram 1) | 500m | - (Built into GOT) |  | 1 GOT for 1 multi-communication unit | |
| | | | | GT15-RS4-9S |  | | |
| | | | | GT10-C02H-9SC |  | | |
| | | |  RS-485 connection diagram 2) | 500m | - (Built into GOT) | |  |

*1 The multi-communication unit is a product manufactured by KEYENCE CORPORATION.

For details of the product, contact KEYENCE CORPORATION.

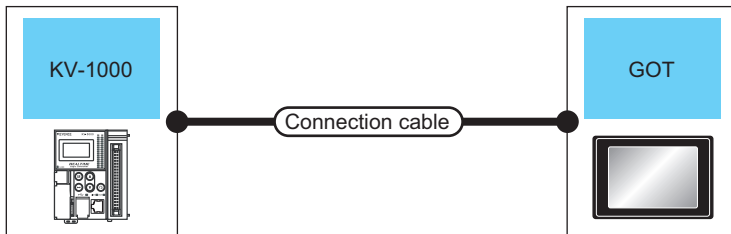
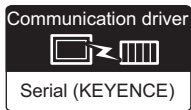
*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

*4 For GS21-W, use the RS-422 interface for connection.

Connecting to KV-1000 series

When connecting to PLC



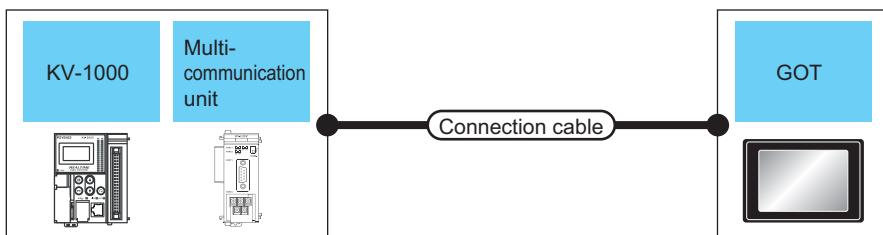
| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|-------------------|--------------------|--|------------------------|---------------|--------------------|--------------------|---------------------------------|-------------|
| Model name | Communication Type | Cable model Connection diagram number | Conversion connector*1 | Max. distance | Option device*3 | Model | | |
| KV-1000 | RS-232 | GT09-C30R21101-6P or (User preparing) RS-232 connection diagram 1) | - | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | | (User preparing) RS-232 connection diagram 4) | - | 15m | - (Built into GOT) | | | |
| | | OP-26487*1 | OP-26486 | 2.5m | - | - (Built into GOT) | | |
| | | | | | | | | GT15-RS2-9P |
| GT10-C02H-6PT9P*2 | | | | | | | | |

*1 The cable and conversion connector are products manufactured by KEYENCE CORPORATION.
For details of the product, contact KEYENCE CORPORATION.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to multi-communication unit



| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|---------------------------|----------------------------|--------------------|---|---------------|--------------------|-------|--------------------------------------|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| KV-1000 | KV-L20R, KV-L20V (port 1) | RS-232 | GT09-C30R21102-9S(3m) or RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | RS-232 connection diagram 5) | 15m | - (Built into GOT) | | |
| KV-L20R, KV-L20V (port 2) | KV-L20R, KV-L20V (port 2) | RS-232 | GT09-C30R21103-3T(3m) or RS-232 connection diagram 3) | 15m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | RS-232 connection diagram 6) | 15m | - (Built into GOT) | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment | |
|------------|----------------------------|--------------------|--|---------------|--------------------|---------------|--------------------------------------|--|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | | |
| KV-1000 | KV-L20R, KV-L20V (port 2) | RS-422 | GT09-C30R41101-5T(3m) GT09-C100R41101-5T(10m) GT09-C200R41101-5T(20m) GT09-C300R41101-5T(30m) or RS-422 connection diagram 1) | 500m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit | |
| | | | | | | GT15-RS4-9S | | |
| | | | | | | GT10-C02H-9SC | | |
| | | | RS-422 connection diagram 2) | 500m | - (Built into GOT) | | | |
| | | RS-485 | RS-485 connection diagram 1) | 500m | - (Built into GOT) | | | |
| | | | | | | GT15-RS4-9S | | |
| | | | | | | GT10-C02H-9SC | | |
| | | | RS-485 connection diagram 2) | 500m | - (Built into GOT) | | | |

*1 The multi-communication unit is a product manufactured by KEYENCE CORPORATION.
For details of the product, contact KEYENCE CORPORATION.

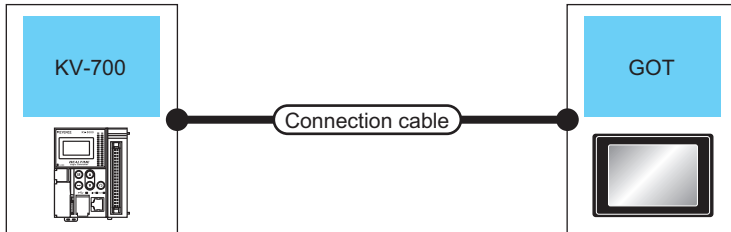
*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

*4 For GS21-W, use the RS-422 interface for connection.

Connecting to KV-700 series

When connecting to PLC



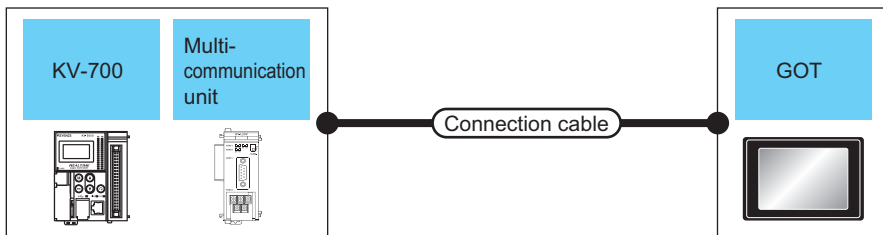
| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|-------------------|--------------------|--|------------------------|---------------|--------------------|--------------------|---------------------------------|-------------|
| Model name | Communication Type | Cable model Connection diagram number | Conversion connector*1 | Max. distance | Option device*3 | Model | | |
| KV-700 | RS-232 | GT09-C30R21101-6P or (User preparing) RS-232 connection diagram 1) | - | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | | (User preparing) RS-232 connection diagram 4) | - | 15m | - (Built into GOT) | | | |
| | | OP-26487*1 | OP-26486 | 2.5m | - | - (Built into GOT) | | |
| | | | | | | | | GT15-RS2-9P |
| GT10-C02H-6PT9P*2 | | | | | | | | |

*1 The cable, conversion connector, and multi-communication unit are products manufactured by KEYENCE CORPORATION. For details of the product, contact KEYENCE CORPORATION.

















*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to multi-communication unit



| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|------------|-----------------------------------|--------------------|---|---------------|--------------------|-------|--------------------------------------|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| KV-700 | KV-L20R, KV-L20, KV-L20V (port 1) | RS-232 | GT09-C30R21102-9S(3m) or RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS2-9P | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | RS-232 connection diagram 5) | 15m | - (Built into GOT) | | |
| | KV-L20R, KV-L20, KV-L20V (port 2) | RS-232 | GT09-C30R21103-3T(3m) or RS-232 connection diagram 3) | 15m | - (Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | RS-232 connection diagram 6) | 15m | - (Built into GOT) | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|------------|-----------------------------------|--------------------|--|---------------|--|---|--------------------------------------|
| Model name | Multi-communication unit*1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| KV-700 | KV-L20R, KV-L20, KV-L20V (port 2) | RS-422 | GT09-C30R41101-5T(3m) GT09-C100R41101-5T(10m) GT09-C200R41101-5T(20m) GT09-C300R41101-5T(30m) or  RS-422 connection diagram 1) | 500m | - (Built into GOT) |     | 1 GOT for 1 multi-communication unit |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |  | |
| | | | | |  RS-422 connection diagram 2) | 500m | |
| | KV-L20R, KV-L20, KV-L20V (port 2) | RS-485 |  RS-485 connection diagram 1) | 500m | - (Built into GOT) |     *4 | |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |  | |
| | | | | |  RS-485 connection diagram 2) | 500m | |

*1 The conversion connector and multi-communication unit are products manufactured by KEYENCE CORPORATION.
For details of the product, contact KEYENCE CORPORATION.

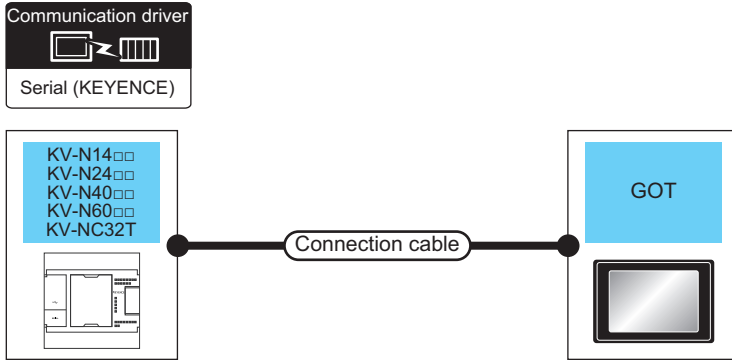
*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

*4 For GS21-W, use the RS-422 interface for connection.

Connecting to KV Nano series

When connecting to PLC



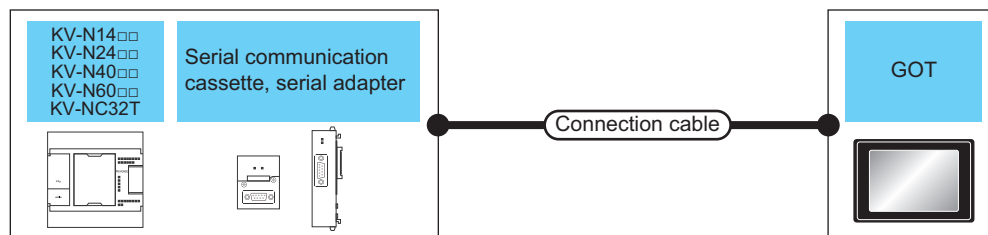
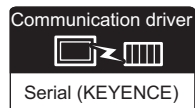
| PLC | | Connection cable | | | GOT | | Number of connectable equipment | |
|--|--------------------|--|------------------------------------|---------------|-----------------------------|-------------------------------|---------------------------------|-------------|
| Model name | Communication Type | Cable model Connection diagram number | Conversion connector ^{*1} | Max. distance | Option device ^{*3} | Model | | |
| KV-N14□□ KV-N24□□ KV-N40□□ KV-N60□□ KV-NC32T | RS-232 | GT09-C30R21101-6P or (User preparing) RS-232 connection diagram 1) | - | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | (User preparing) RS-232 connection diagram 4) | - | 15m | - (Built into GOT) | | | |
| | | OP-26487 ^{*1} | OP-26486 | 2.5m | - | - | | |
| | | | | | | | | GT15-RS2-9P |
| GT10-C02H-6PT9P ^{*2} | | | | | | | | |

^{*1} The cable, conversion connector, and multi-communication unit are products manufactured by KEYENCE CORPORATION. For details of the product, contact KEYENCE CORPORATION.











^{*2} When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

^{*3} GT25-W, GT2505-V does not support the option device.

Connecting to serial communication cassette or serial adapter



| PLC | | Connection cable | | GOT | | Number of connectable equipment | |
|--|--|--------------------|---|---------------|--------------------|---------------------------------|---|
| Model name | Serial communication cassette, serial adapter *1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device *3 | | Model |
| KV-N14□□ KV-N24□□ KV-N40□□ KV-N60□□ KV-NC32T | KV-N10L, KV-NC10L, KV-NC20L (port 1) | RS-232 | GT09-C30R21102-9S(3m) or RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 serial communication cassette or serial adapter |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P *2 | | |
| | | | RS-232 connection diagram 5) | 15m | - (Built into GOT) | | |
| KV-NC32T | KV-NC20L (port 2) | RS-232 | RS-232 connection diagram 7) | 15m | - (Built into GOT) | | 1 GOT for 1 serial communication cassette or serial adapter |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P *2 | | |
| | | | RS-232 connection diagram 8) | 15m | - (Built into GOT) | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment | |
|--|--|--------------------|--|---------------|--------------------|--|---|---|
| Model name | Serial communication cassette, serial adapter *1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device *3 | Model | | |
| KV-N14□□ KV-N24□□ KV-N40□□ KV-N60□□ KV-NC32T | KV-N11L, KV-NC20L (port 2) | RS-422 |  RS-422 connection diagram 3) | 500m | - (Built into GOT) |  | 1 GOT for 1 serial communication cassette or serial adapter | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |  |
| | | | | | |  RS-422 connection diagram 4) | | 500m |
| | | RS-485 |  RS-485 connection diagram 3) | 500m | - (Built into GOT) |  | *4 | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |  |
| | | | | | |  RS-485 connection diagram 4) | | 500m |

*1 The serial communication cassette and serial adapter are products manufactured by KEYENCE CORPORATION. For details of the product, contact KEYENCE CORPORATION.
 *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
 *3 GT25-W, GT2505-V does not support the option device.
 *4 For GS21-W, use the RS-422 interface for connection.

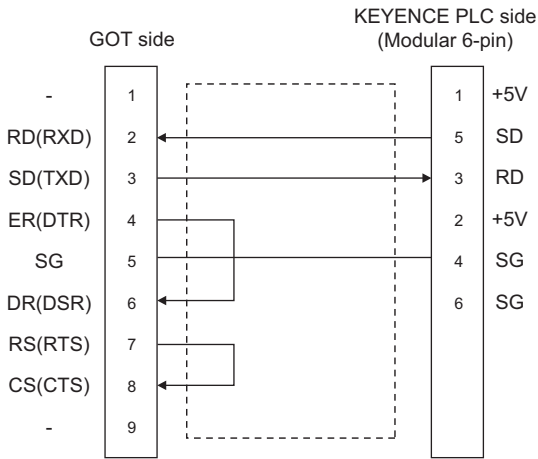
Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

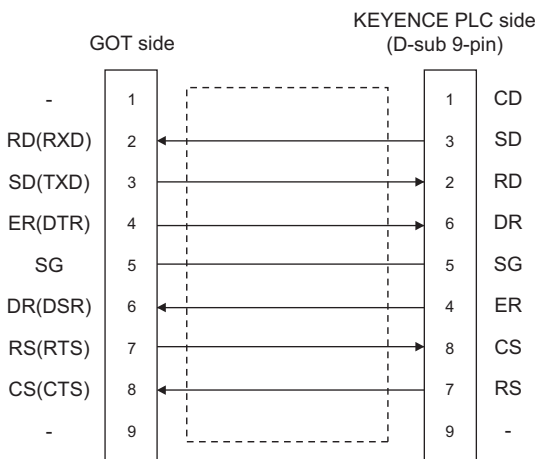
RS-232 cable

■ Connection diagram

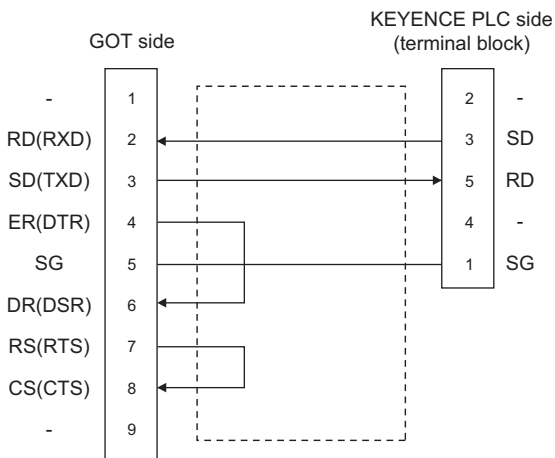
- RS-232 connection diagram 1)



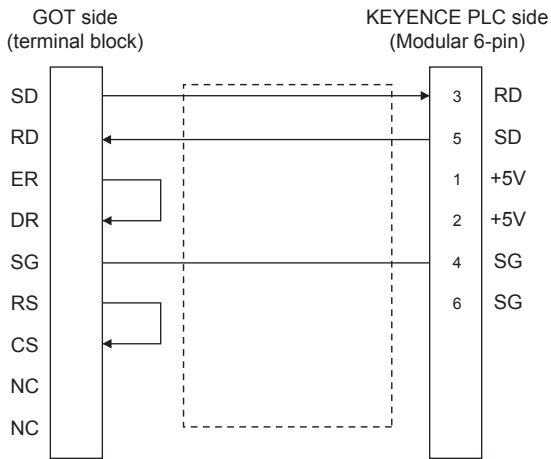
- RS-232 connection diagram 2)



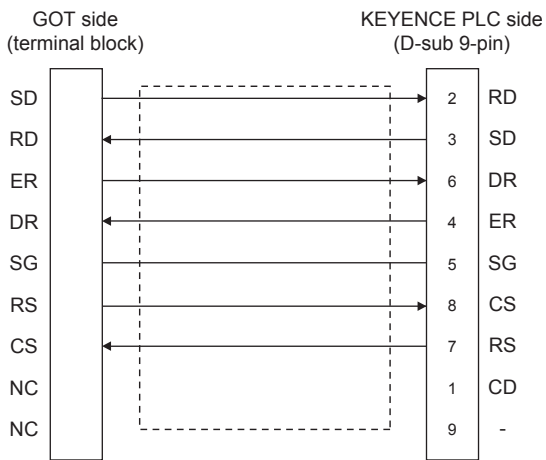
- RS-232 connection diagram 3)



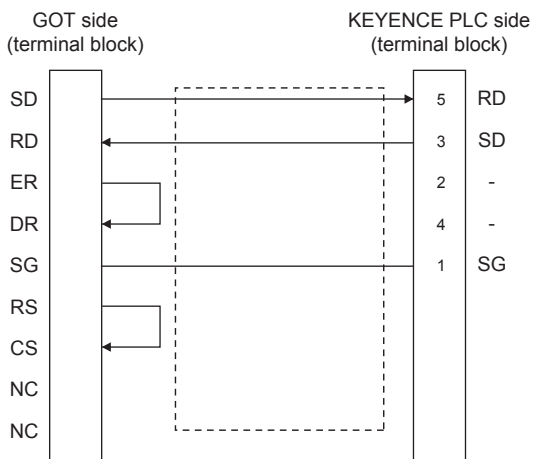
• RS-232 connection diagram 4)



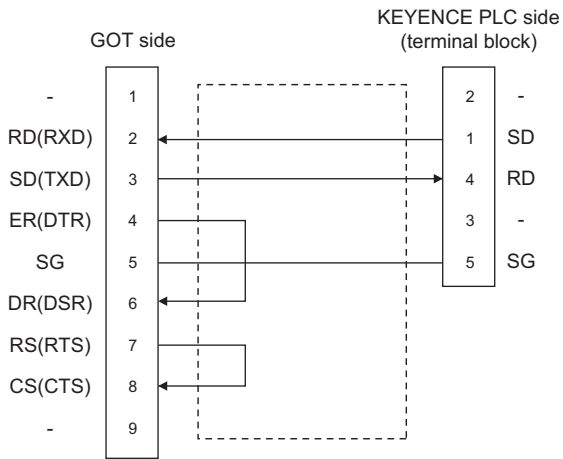
• RS-232 connection diagram 5)



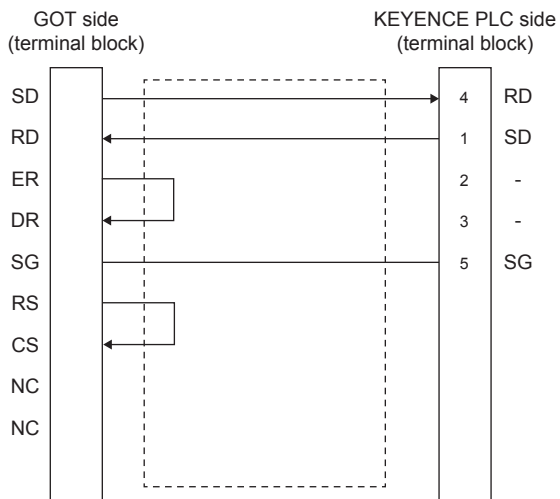
• RS-232 connection diagram 6)



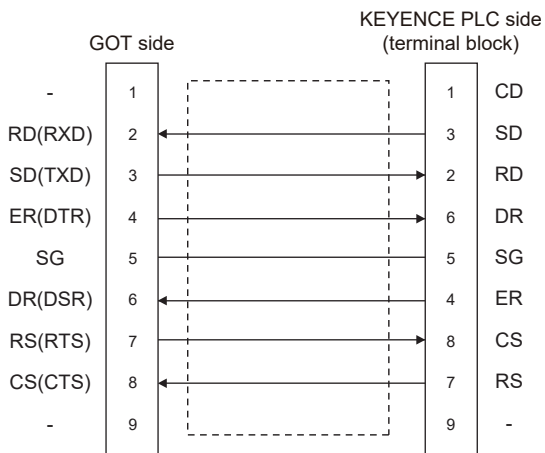
• RS-232 connection diagram 7)



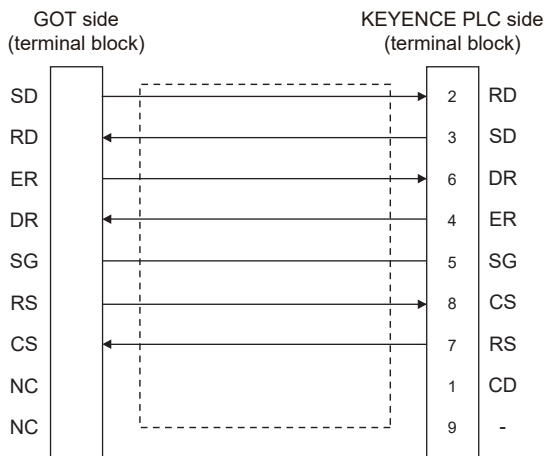
• RS-232 connection diagram 8)



• RS-232 connection diagram 9)



- RS-232 connection diagram 10)



■Precaution when preparing a cable

- Cable length

The length of the RS-232 cable must be within 15m.

- GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

- KEYENCE PLC side connector

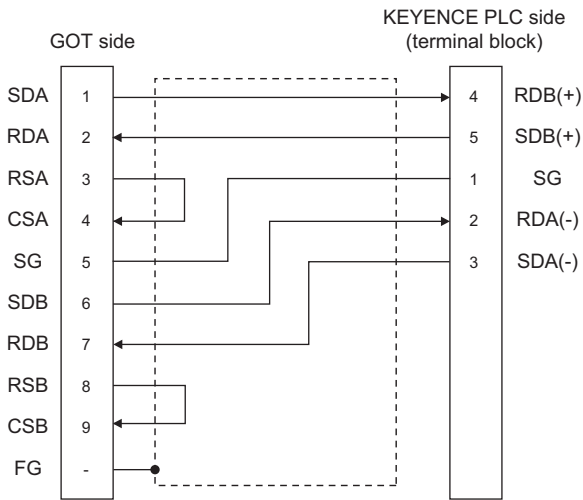
Use the connector compatible with the KEYENCE PLC side module.

For details, refer to the KEYENCE PLC user's manual.

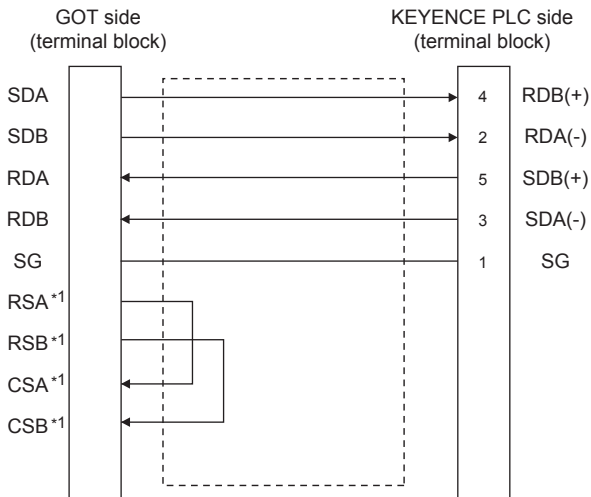
RS-422 cable

■ Connection diagram

- RS-422 connection diagram 1)

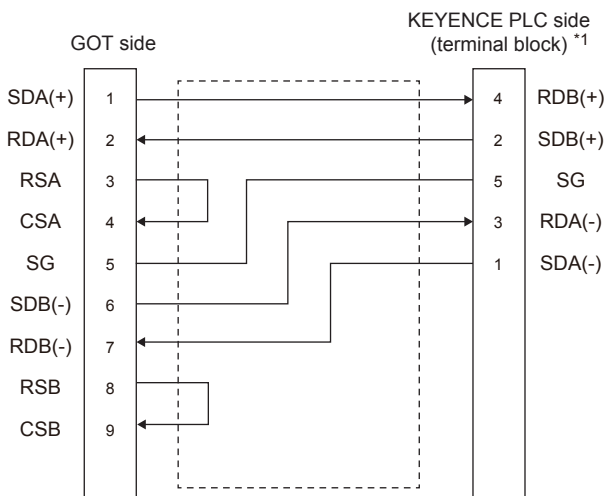


- RS-422 connection diagram 2)



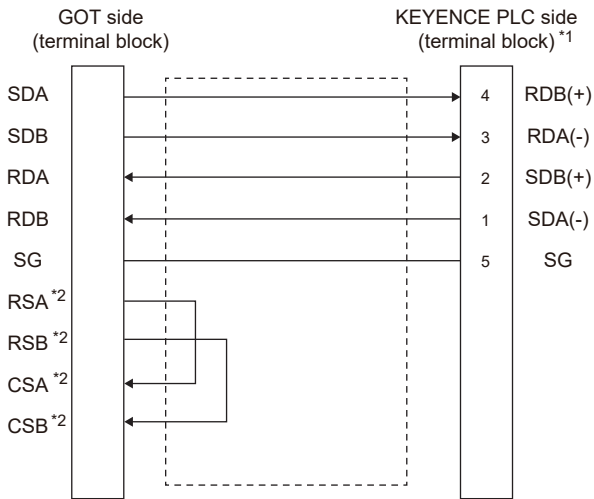
*1 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

- RS-422 connection diagram 3)



*1 Turn on the terminating resistor selector.

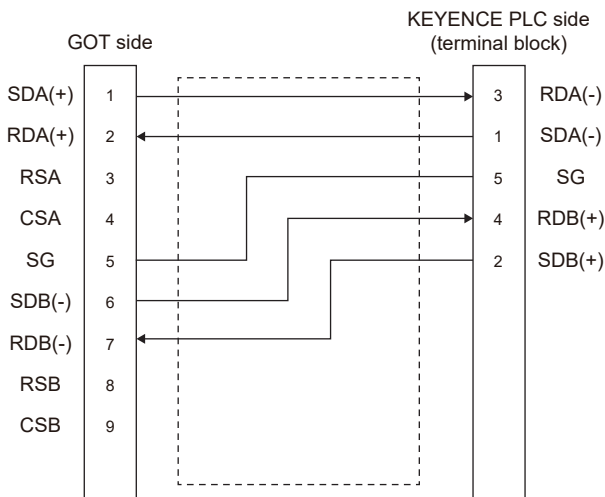
• RS-422 connection diagram 4)



*1 Turn on the terminating resistor selector.

*2 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD and GT2103-PMBD. Return connection is not required.

• RS-422 connection diagram 5)



■Precautions when preparing a cable

- Cable length

The length of the RS-422 cable must be 500m or less

- GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

- KEYENCE PLC side connector

Use the connector compatible with the KEYENCE PLC side module.

For details, refer to the KEYENCE PLC user's manual.

■Connecting terminating resistors

- GOT side

When connecting a KEYENCE PLC to the GOT, a terminating resistor must be connected to the GOT.

For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to disable.

For GT2505-V, GT21, and GS21-W-N

Set the terminating resistor selector to 330 Ω.

For GS21-W

Since the terminating resistor is fixed to 330 Ω, no setting is required for the terminating resistor.

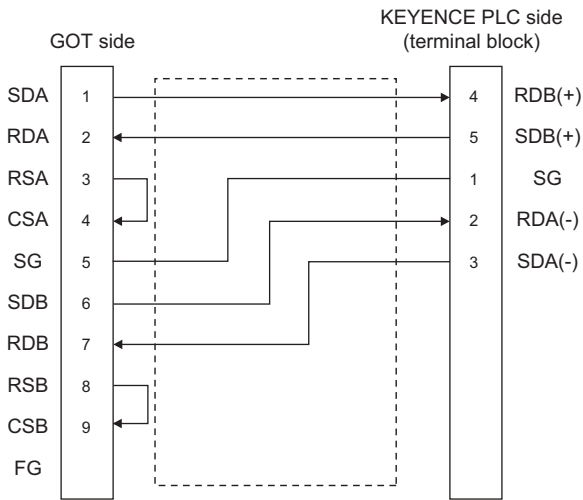
For the procedure to set the terminating resistor, refer to the following.

☞ Page 62 Terminating resistors of GOT

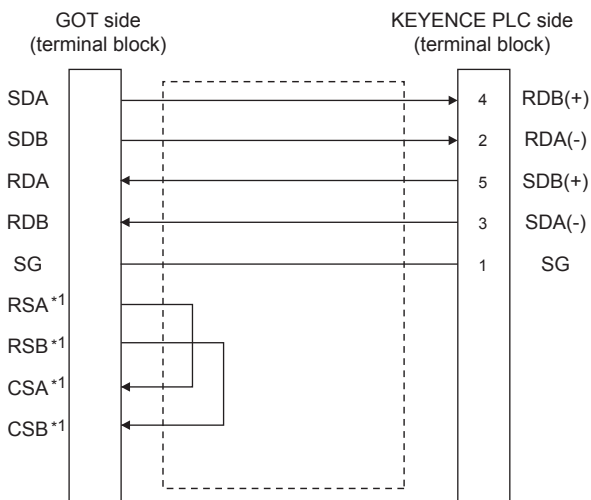
RS-485 cable

■ Connection diagram

- RS-485 connection diagram 1)

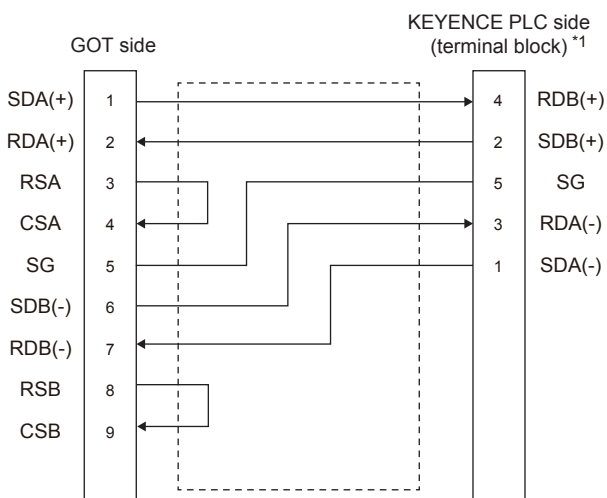


- RS-485 connection diagram 2)



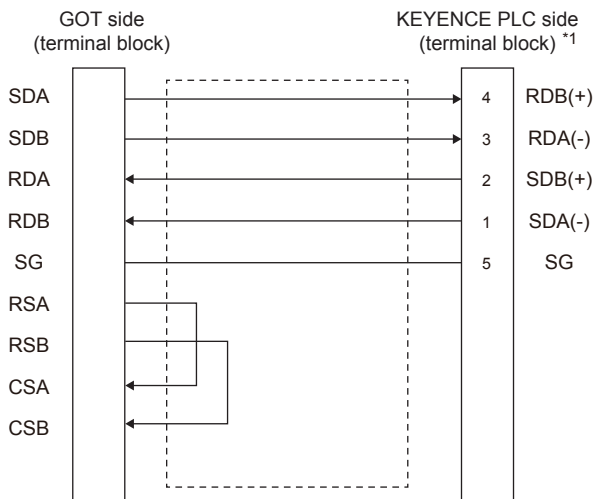
*1 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

- RS-485 connection diagram 3)



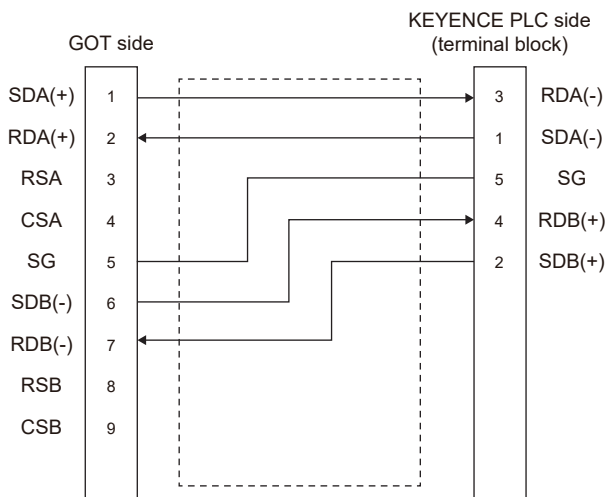
*1 Turn on the terminating resistor selector.

• RS-485 connection diagram 4)



*1 Turn on the terminating resistor selector.

• RS-485 connection diagram 5)



■Precautions when preparing a cable

- Cable length

The length of the RS-485 cable must be 500m or less

- GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

- KEYENCE PLC side connector

Use the connector compatible with the KEYENCE PLC side module.

For details, refer to the KEYENCE PLC user's manual.

■Connecting terminating resistors

- GOT

For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to enable.

For GT2505-V, GT21, and GS21-W-N

Set the terminating resistor selector to 330 Ω.

For GS21-W

Since the terminating resistor is fixed to 330 Ω, no setting is required for the terminating resistor.

For the procedure to set the terminating resistor, refer to the following.

☞ Page 62 Terminating resistors of GOT

- KEYENCE PLC

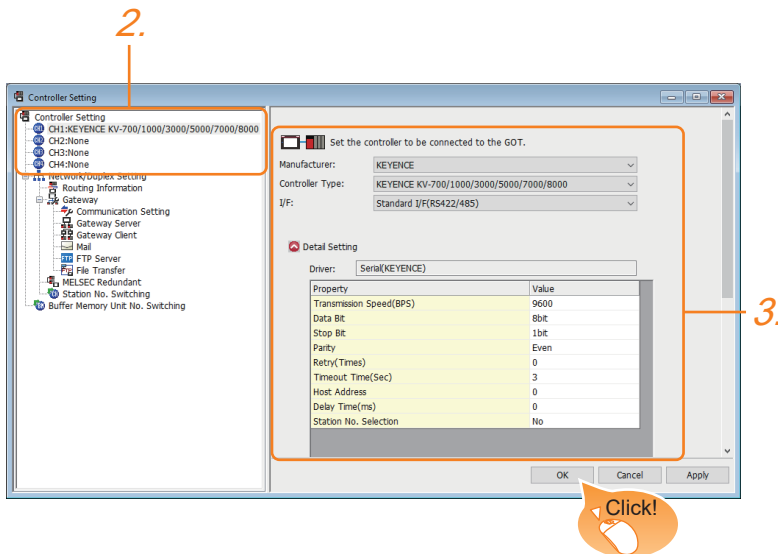
Connect the terminating resistor on the KEYENCE PLC side when connecting a GOT to a KEYENCE PLC.

☞ Page 337 PLC Side Setting

GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
 2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
 3. Set the following items.
 - [Manufacturer]: [KEYENCE]
 - [Controller Type]: [KEYENCE KV-700/1000/3000/5000/7000/8000]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.
- ☞ Page 336 Communication detail settings
4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.


| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Host Address | 0 |
| Delay Time(ms) | 0 |
| Station No. Selection | No |

| Item | Contents | Range |
|-----------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bit) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address | Specify the host address (station No. of the PLC to which the GOT is connected) in the network of the GOT. (Default: 0) | 0 to 9 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300ms |
| Station No. Selection | Specify whether to use the station No. during communication. (Default: No) | Yes or No According to the connection type, configure the setting as shown below. <ul style="list-style-type: none"> • Select "Yes" for connection through either of the following. Multi-communication unit (port 2) Serial communication adapter (port 2) • Select "No" for connection through one of the following. Direct CPU connection (serial) Multi-communication unit (port 1) Serial communication cassette (port 1) Serial communication adapter (port 1) |

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data. For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

PLC Side Setting



KEYENCE PLC

For details of KEYENCE PLC, refer to the following manual.

KEYENCE PLC user's Manual

| Model name | | Reference |
|-------------------------------|----------|--|
| PLC CPU | KV-7300 | Page 337 Connecting KV-7300, KV-3000, KV-1000 |
| | KV-3000 | Page 337 Connecting KV-7300, KV-3000, KV-1000 |
| | KV-1000 | Page 337 Connecting KV-7300, KV-3000, KV-1000 |
| | KV-700 | Page 337 Connecting to KV-700 |
| | KV-N14□□ | Page 338 Connecting to KV-N14□□, KV-N24□□, KV-N40□□, KV-N60□□, KV-NC32T |
| | KV-N24□□ | Page 338 Connecting to KV-N14□□, KV-N24□□, KV-N40□□, KV-N60□□, KV-NC32T |
| | KV-N40□□ | Page 338 Connecting to KV-N14□□, KV-N24□□, KV-N40□□, KV-N60□□, KV-NC32T |
| | KV-N60□□ | Page 338 Connecting to KV-N14□□, KV-N24□□, KV-N40□□, KV-N60□□, KV-NC32T |
| | KV-NC32T | Page 338 Connecting to KV-N14□□, KV-N24□□, KV-N40□□, KV-N60□□, KV-NC32T |
| Multi-communication unit | KV-L20R | Page 338 Connecting to KV-L20R, KV-L20, KV-L20V, KV-L21V, KV-XL202, KV-XL402 |
| | KV-L20 | |
| | KV-L20V | |
| | KV-L21V | |
| | KV-XL202 | |
| | KV-XL402 | |
| Serial communication cassette | KV-N10L | Page 340 Connecting to KV-N10L, KV-N11L, KV-NC10L, KV-NC20L |
| | KV-N11L | |
| Serial adapter | KV-NC10L | |
| | KV-NC20L | |

Connecting KV-7300, KV-3000, KV-1000

| Setting items | Set value |
|-----------------------|----------------------|
| Communication mode *2 | KV mode (Upper link) |
| Transmission Speed | 9600 to 115200 bps*1 |
| Data bit | 8bits |
| Parity bit | Even |
| Stop bit | 1bit |

*1 There is no transmission speed setting on the PLC side. The transmission speed of the PLC side is automatically adjusted to that of the GOT side.

*2 The communication mode setting is not available for KV-3000 and KV-1000.

Connecting to KV-700

| Setting items | Set value |
|--------------------|-----------|
| Transmission Speed | 9600bps |
| Data bit | 8bits |
| Parity bit | Even |
| Stop bit | 1bit |

Connecting to KV-N14□□, KV-N24□□, KV-N40□□, KV-N60□□, KV-NC32T

| Setting items | Set value |
|-------------------------|--|
| Communication mode | KV mode (Upper link) |
| Transmission speed *1*2 | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data bit | 8bits |
| Parity bit | Even |
| Stop bit | 1bit |

*1 Only transmission speeds available on the GOT side are shown.

*2 The transmission speed setting must be consistent with that of the GOT side.

For the transmission speed setting on the GOT side, refer to the following.

☞ Page 335 Setting communication interface (Communication settings)

Connecting to KV-L20R, KV-L20, KV-L20V, KV-L21V, KV-XL202, KV-XL402

■ Communication settings

| Setting items | Set value |
|------------------------|---|
| Communication mode | KV mode (Upper link) |
| Transmission speed*1*2 | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data bit | 8bits |
| Parity bit | Even |
| Stop bit | 1bit |
| Station No.*3 | 0 to 9 |

*1 Only transmission speeds available on the GOT side are shown.

*2 The transmission speed setting must be consistent with that of the GOT side.

For the transmission speed setting on the GOT side, refer to the following.

☞ Page 335 Setting communication interface (Communication settings)

*3 Set the station No. according to the host address on the GOT side.

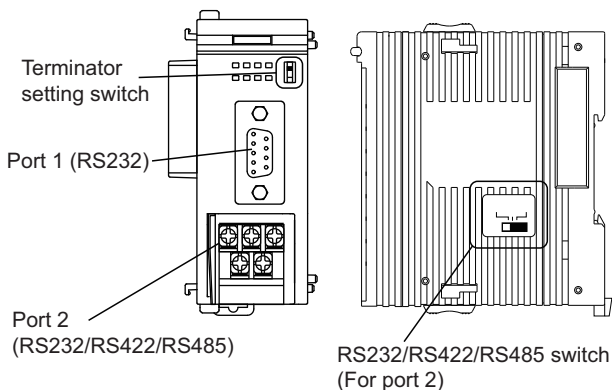
For the Host Address setting on the GOT side, refer to the following.

☞ Page 335 Setting communication interface (Communication settings)

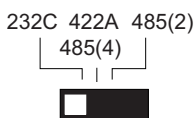
■Setting DIP switches

Set the DIP switches.

- When using KV-L20R or KV-L20



- RS232/RS422/RS485 switch (For port 2)
(For KV-L20R)



| Settings | |
|--------------------------|--------------------------|
| For RS-232 communication | For RS-422 communication |
| RS-232C | RS-422A 485(4) |

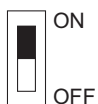
(For KV-L20)



| Settings | |
|--------------------------|--------------------------|
| For RS-232 communication | For RS-422 communication |
| RS-232C | RS-422A |

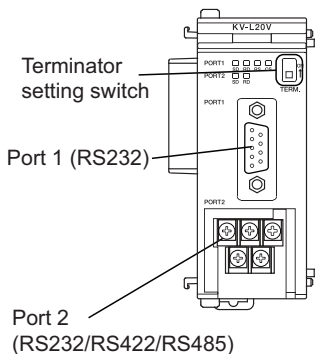
- Terminator setting switch

Set when carrying out RS-422 communication.



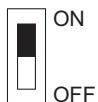
| Settings | |
|---|---|
| When multi-communication unit is a terminal | When multi-communication unit is not a terminal |
| ON | OFF |

- When using KV-L20, KV-L21V



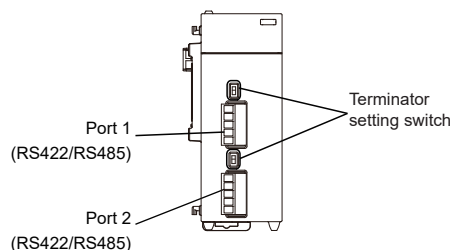
- Terminator setting switch

Set when carrying out RS-422 communication.



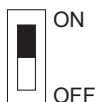
| Settings | |
|---|---|
| When multi-communication unit is a terminal | When multi-communication unit is not a terminal |
| ON | OFF |

- When using KV-XL402



Terminator setting switch

Set when carrying out RS-422 communication.



| Settings | |
|---|---|
| When multi-communication unit is a terminal | When multi-communication unit is not a terminal |
| ON | OFF |

Connecting to KV-N10L, KV-N11L, KV-NC10L, KV-NC20L

| Setting items | Set value |
|------------------------------------|--|
| Communication mode | KV mode (Upper link) |
| Transmission speed ^{*1*2} | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data bit | 8bits |
| Parity bit | Even |
| Stop bit | 1bit |

*1 Only transmission speeds available on the GOT side are shown.

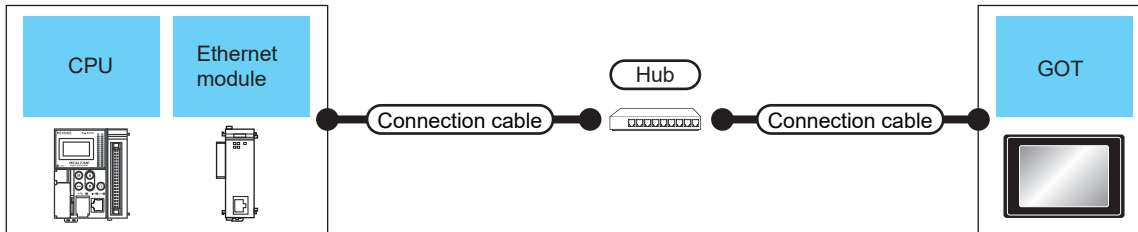
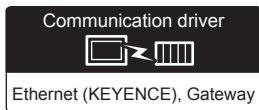
*2 The transmission speed setting must be consistent with that of the GOT side.

For the transmission speed setting on the GOT side, refer to the following.





☞ Page 335 Setting communication interface (Communication settings)

6.3 Ethernet Connection

Ethernet connection



| PLC Series | Ethernet module ^{*3} | Connection cable Cable model ^{*1} | Maximum segment length ^{*2} | GOT | | Number of connectable equipment |
|---|-------------------------------|--|--------------------------------------|-----------------------------|---------------------|---|
| | | | | Option device ^{*4} | Model ^{*3} | |
| KV-5000 KV-7500 KV-8000 | - | Twisted pair cable ^{*1} • 10BASE-T Shielded twisted pair cable (STP) or unshielded twisted pair cable (UTP): Category 3, 4, and 5 • 100BASE-TX Shielded twisted pair cable (STP): Category 5 and 5e | 100m | - (Built into GOT) | | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT <For GT27, GT25, GS25> TCP: 128 or less UDP: 128 or less <For GT21, GS21> TCP: 4 or less UDP: 4 or less |
| | | | | GT25-J71E71-100 | | |
| KV-700 KV-1000 KV-3000 KV-5000 KV-5500 KV-7300 KV-7500 KV-8000 | KV-LE20V KV-LE21V | | 100m | - (Built into GOT) | | When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC TCP: 15 or less UDP: 1 or less |
| | | | | GT25-J71E71-100 | | |
| KV-7300 KV-7500 KV-8000 | KV-EP21V KV-XLE02 | | 100m | - (Built into GOT) | | |
| | | | | GT25-J71E71-100 | | |

| PLC Series | Ethernet module ^{*3} | Connection cable Cable model ^{*1} | Maximum segment length ^{*2} | GOT Option device ^{*4} | Model ^{*3} | Number of connectable equipment |
|----------------------------------|-------------------------------|--|--------------------------------------|------------------------------------|---|---|
| KV-N24□□ KV-N40□□ KV-N60□□ | KV-N1 + KV-NC1EP | Twisted pair cable ^{*1} • 10BASE-T Shielded twisted pair cable (STP) or unshielded twisted pair cable (UTP): Category 3, 4, and 5 • 100BASE-TX Shielded twisted pair cable (STP): Category 5 and 5e | 100m | - (Built into GOT) |  | When PLC:GOT is N:1 The following shows the number of PLCs for 1 GOT <For GT27, GT25, GS25> TCP: 128 or less UDP: 128 or less <For GT21, GS21> TCP: 4 or less UDP: 4 or less When PLC:GOT is 1:N The following shows the number of GOTs for 1 PLC TCP: 15 or less UDP: 1 or less |
| | | | | GT25-J71E71-100 |  | |
| KV-NC32T | KV-NC1EP | | 100m | - (Built into GOT) |  | |
| | | | | GT25-J71E71-100 |  | |

*1 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system. Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standards. To connect the target device and hub, use a cable according to the target controller configuration.

*2 A length between a hub and a node.
The maximum distance differs depending on the Ethernet device to be used.
The following shows the number of the connectable nodes when a repeater hub is used.
• 10BASE-T: Max. 4 nodes for a cascade connection (500m)
• 100BASE-TX: Max. 2 nodes for a cascade connection (205m)
When switching hubs are used, the cascade connection between the switching hubs has no logical limit for the number of cascades. For the limit, contact the switching hub manufacturer.

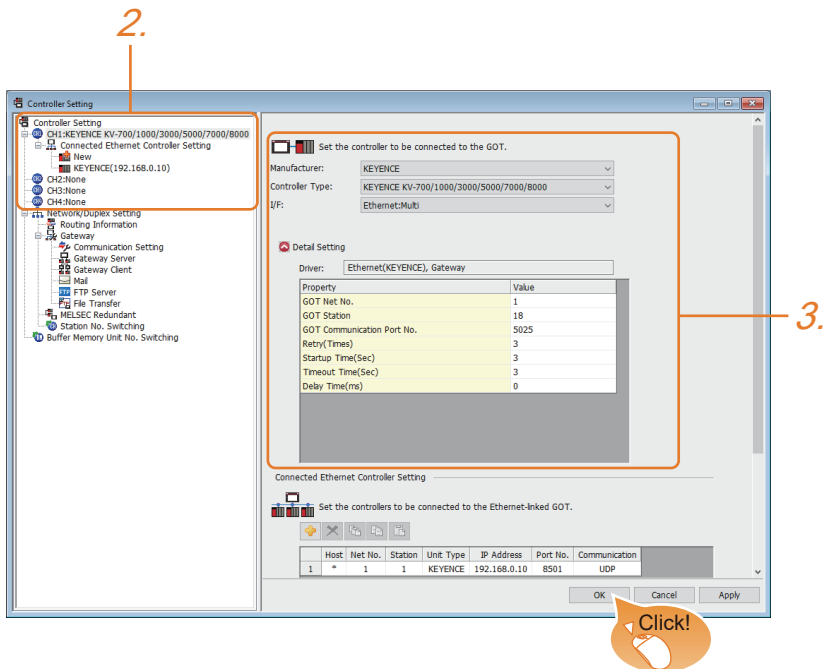
*3 Product manufactured by KEYENCE CORPORATION. For details of the product, contact KEYENCE CORPORATION.

*4 GT25-W, GT2505-V does not support the option device.

GOT side settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [KEYENCE]
 - [Controller Type]: [KEYENCE KV-700/1000/3000/5000/7000/8000]
 - [I/F]: [Ethernet:Multi]

When using the Ethernet communication unit (GT25-J71E71-100), also select [Ethernet:Multi].

- [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 344 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting


Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|----------------------------|-------|
| GOT Net No. | 1 |
| GOT Station | 18 |
| GOT Communication Port No. | 5025 |
| Retry(Times) | 3 |
| Startup Time(Sec) | 3 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|----------------------------|---|---|
| GOT Net No. | Set the network No. of the GOT. (Default: 1) | 1 to 239 |
| GOT Station*1 | Set the station No. of the GOT. (Default: 18) | 1 to 254 |
| GOT Communication Port No. | Set the GOT port No. for the connection with the Ethernet module. (Default: 5025*2) | 1024 to 5010, 5014 to 65534 (Except for 5011, 5012, 5013, and 49153 to 49170) |
| Retry | Set the number of retries to be performed when a communication timeout occurs. When receiving no response after retries, the communication times out. (Default: 3times) | 0 to 5times |
| Startup Time | Specify the time period from the GOT startup until GOT starts the communication with the PLC CPU. (Default: 3sec) | 3 to 255sec |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 90sec |
| Delay Time | Set the delay time for reducing the load of the network/destination PLC. (Default: 0ms) | 0 to 10000 (ms) |

*1 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].

 Page 345 Connected Ethernet Controller Setting

*2 When assigning the same driver to the multiple channels, in the communication drivers set as the second and following, the default value of [GOT Communication Port No.] becomes the earliest number in the vacant numbers of No. 6000 and later.

GOT Ethernet Setting

The GOT can be connected to a different network by configuring the following setting.

■GOT IP address setting

Set the following communication port setting.

- Standard port (When using GT25-W or GS25: Port 1)
- Extended port (When using GT25-W or GS25: Port 2)

■GOT Ethernet common setting

Set the following setting which is common to the standard port and the extension port, or port 1 and port 2.

- [Default Gateway]
- [Peripheral S/W Communication Port No.]
- [Transparent Port No.]

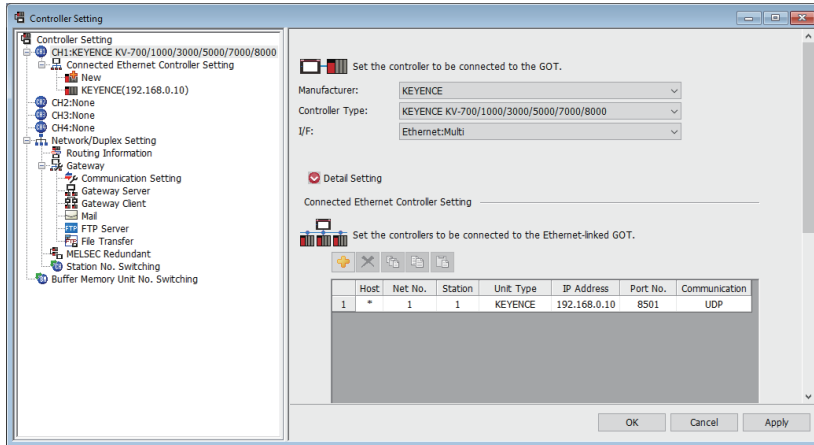
■IP filter setting

By configuring the IP filter setting, the access from the specific IP address can be permitted or shut off.

For the detailed settings, refer to the following manual.


 Page 44 GOT Ethernet Setting

Connected Ethernet Controller Setting



| Item | Description | Set value |
|------------------------------|---|--|
| Host | The host is displayed. It refers to a station that can be connected without setting a station number. (The host is indicated with an asterisk (*).) | - |
| Net No. | Set the network No. of the connected Ethernet module. (Default: blank) | 1 to 239 |
| Station * ¹ | Set the station No. of the connected Ethernet module. (Default: blank) | 1 to 254 |
| Unit Type | KEYENCE (fixed) | KEYENCE (fixed) |
| IP Address | Set the IP address of the connected Ethernet module. (Default: 192.168.0.10) | PLC side IP address |
| Port No. | Set the port No. of the connected Ethernet module. (Default: 8501) | PLC side port No. |
| Communication * ² | UDP, TCP (Default: UDP) | Adjust the settings with the PLC settings. |

*1 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].

 Page 344 Communication detail settings


*2 During UDP communication, if communications become unstable after a communication error due to noise, network disconnection, or power failure, use TCP communication.

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication setting] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

[Connected Ethernet Controller Setting] for GT21 and GS21

- Effective range of [Connected Ethernet Controller Setting]

Only [1] to [4] of [Connected Ethernet Controller Setting] can be used for GT21 and GS21.

If [5] onwards are used, the settings are invalid on GT21 and GS21.

- [Host] setting

Set [Host] within the range from [1] to [4] in [Connected Ethernet Controller Setting].

Connected Ethernet Controller Setting

Set the controllers to be connected to the

| | Host | Net No. | Station |
|---|------|---------|---------|
| 1 | * | 1 | 1 |
| 2 | | 1 | 2 |
| 3 | | 1 | 3 |
| 4 | | 1 | 4 |

Only [1] to [4] can be used.

PLC side setting



KEYENCE PLC

For details of KEYENCE PLC, refer to the following manual.

KEYENCE PLC user's Manual

Setting of KV-5000, KV-7500, and KV-8000 (built-in Ethernet)

Set the communication mode, IP address and port No. by the unit editor of KV STUDIO.

| Item | Description | Range |
|---------------------------------------|---------------------|----------------------------|
| Communication mode | Ethernet | - |
| IP address* ¹ | Set the IP address. | 0.0.0.0 to 255.255.255.255 |
| Port No.* ¹ (Host link) | Set the port No. | 256 to 65534 |

*¹ Apply the same setting as [Connected Ethernet Controller Setting] of the GOT.

Page 345 Connected Ethernet Controller Setting

Setting of KV-LE21V, KV-LE20V, KV-EP21V, KV-XLE02, and KV-NC1EP

Set the IP address and port No. by the unit editor of KV STUDIO.

| Item | Description | Range |
|---------------------------------------|---------------------|----------------------------|
| IP address* ¹ | Set the IP address. | 0.0.0.0 to 255.255.255.255 |
| Port No.* ¹ (Host link) | Set the port No. | 256 to 65534 |

*¹ Apply the same setting as [Connected Ethernet Controller Setting] of the GOT.

Page 345 Connected Ethernet Controller Setting-

6.4 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.







☞ Page 649 KEYENCE equipment ([KEYENCE KV-700/1000/3000/5000/7000/8000])

7 KOYO EI PLC

- Page 349 Connectable Model List
- Page 350 System Configuration
- Page 364 Connection Diagram
- Page 370 GOT Side Settings
- Page 372 PLC Side Setting
- Page 380 Settable Device Range
- Page 380 Precautions

7.1 Connectable Model List

The following table shows the connectable models.

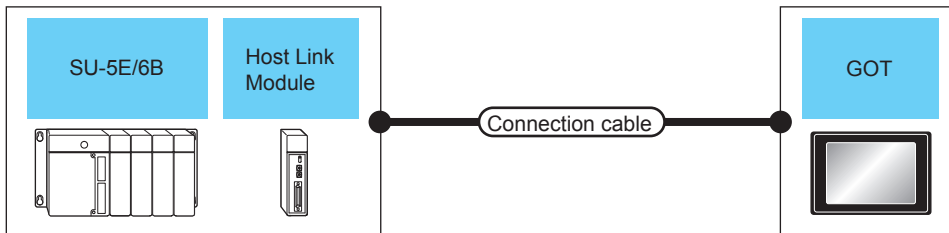
| Series | Model name | Clock*1 | Communication Type | Connectable GOT | Refer to |
|------------------------|------------|---------|--------------------|--|---|
| KOSTAC SU Series | SU-5E | × | RS232 |  | ☞ Page 350 Connecting to SU-5E or SU-6B |
| | SU-6B | ○ | RS422 | | |
| | SU-5M | ○ | RS232 |  | ☞ Page 352 Connecting to SU-5M or SU-6M |
| | SU-6M | ○ | RS422 | | |
| DirectLOGIC 05 Series | D0-05AA | × | RS232 RS422 |  | ☞ Page 355 Connecting to DirectLOGIC 05 series |
| | D0-05AD | × | | | |
| | D0-05AR | × | | | |
| | D0-05DA | × | | | |
| | D0-05DD | × | | | |
| | D0-05DD-D | × | | | |
| | D0-05DR | × | | | |
| | D0-05DR-D | × | | | |
| DirectLOGIC 06 Series | D0-06DD1 | ○ | RS232 RS422 |  | ☞ Page 357 Connecting to DirectLOGIC 06 series |
| | D0-06DD2 | ○ | | | |
| | D0-06DR | ○ | | | |
| | D0-06DA | ○ | | | |
| | D0-06AR | ○ | | | |
| | D0-06AA | ○ | | | |
| | D0-06DD1-D | ○ | | | |
| | D0-06DD2-D | ○ | | | |
| | D0-06DR-D | ○ | | | |
| DirectLOGIC 205 Series | D2-240 | ○ | RS232 RS422 |  | ☞ Page 360 Connecting to D2-240, D2-250-1 or D2-260 |
| | D2-250-1 | ○ | | | |
| | D2-260 | ○ | | | |
| PZ series | PZ3 | × | RS232 RS422 |  | ☞ Page 362 Connecting to PZ |

*1 The GOT can only read the clock data. In the clock setting, though the adjust is available, the broadcast is not available.

7.2 System Configuration

Connecting to SU-5E or SU-6B

When connecting to one PLC

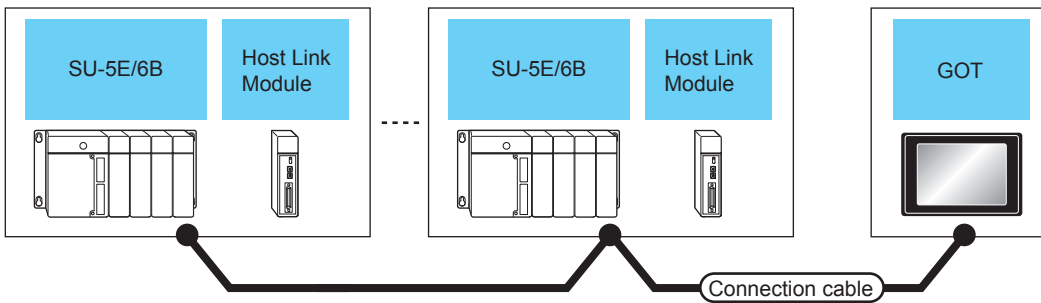


| PLC | | Connection cable | | | GOT | | Number of connectable equipment |
|--|--------------------------------|--------------------|--|---------------|-----------------------------|-------|---------------------------------|
| Model name | Host link module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | |
| SU-5E/6B (general communication port) | - | RS-232 | Page 364 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 PLC for 1 GOT |
| | | | | | GT15-RS2-9P | | |
| | | RS-422 | Page 365 RS-422 connection diagram 1) | 1000m | - (Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |
| SU-5E/6B | U-01DM | RS-232 | Page 364 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 1 host link module for 1 GOT |
| | | | | | GT15-RS2-9P | | |
| | | RS-422 | Page 366 RS-422 connection diagram 3) | 1200m | - (Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |

*1 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD. For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*2 GT25-W, GT2505-V does not support the option device.

When connecting to multiple PLCs



| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|------------|--------------------------------|--------------------|--|---------------|-----------------------------|-------|---|
| Model name | Host link module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| SU-5E/6B | - | RS-422 | Page 367 RS-422 connection diagram 5) | 1000m | - (Built into GOT) | | 90 PLCs for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | |
| SU-5E/6B | U-01DM | RS-422 | Page 368 RS-422 connection diagram 7) | 1200m | - (Built into GOT) | | 90 host link module for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | |

*1 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD. For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

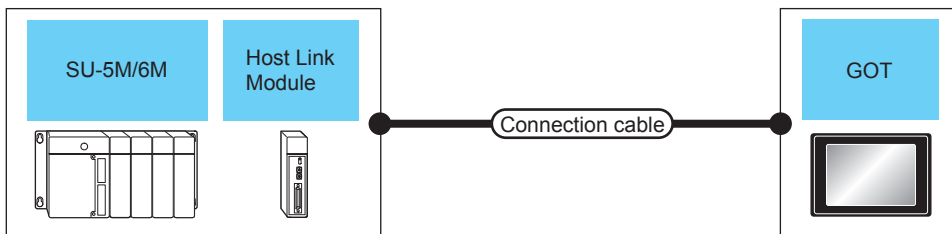
*2 When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links. For details, refer to the following manual.

KOYO EI PLC user's Manual









*3 GT25-W, GT2505-V does not support the option device.

Connecting to SU-5M or SU-6M

When connecting to one PLC



| PLC | | Connection cable | | | GOT | | Number of connectable equipment | | | | |
|--|---|--------------------|---|---|-----------------------------|---|---------------------------------|-------|-------|-------|-----------------|
| Model name | Host link module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | | | | | |
| SU-5M/6M (general communication port 1) | - | RS-232 | (Use/prepare) Page 364 RS-232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 1 PLC for 1 GOT |
| | | | | | GT 27 | GT 25 | | | | | |
| | | GT 23 | GS 25 | | | | | | | | |
| | | GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |
| RS-422 | (Use/prepare) Page 365 RS-422 connection diagram 1) | 1000m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | | | |
| | | | GT 27 | GT 25 | | | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| GT15-RS4-9S | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |
| SU-5M/6M (general communication port 2) | - | RS-232 | Z-20JP (Programmable connecting cable) + S-9CNS1(Conversion connector) ^{*1} | 3m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | |
| | | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |
| SU-5M/6M (general communication port 3) | - | RS-422 | (Use/prepare) Page 365 RS-422 connection diagram 2) | 1000m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | |
| | | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| GT15-RS4-9S | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |

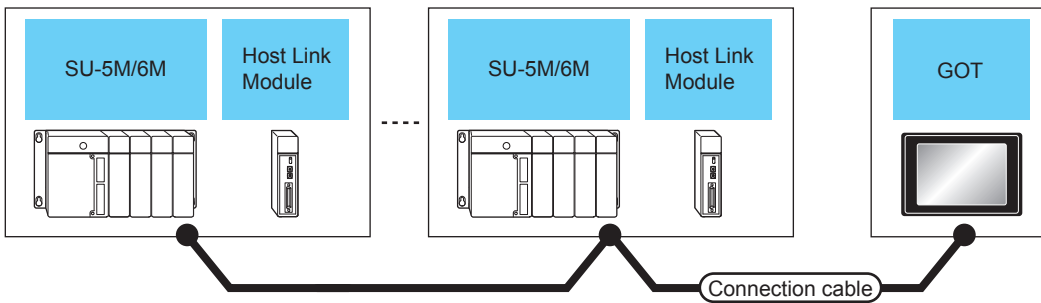
| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|------------|--------------------------------|--------------------|---|---------------|-----------------------------|---|---------------------------------|
| Model name | Host link module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | |
| SU-5M/6M | U-01DM | RS-232 |  Page 364 RS-232 connection diagram 1) | 15m | - (Built into GOT) |   | 1 host link module for 1 GOT |
| | | | | | GT15-RS2-9P |  | |
| | | RS-422 |  Page 366 RS-422 connection diagram 3) | 1200m | - (Built into GOT) |   | |
| | | | | | GT15-RS4-9S |  | |

*1 The programmable connecting cable and conversion connector are products manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.

For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*2 GT25-W, GT2505-V does not support the option device.

When connecting to multiple PLCs



| PLC | | | Connection cable | | GOT | | Number of connectable equipment | |
|--|--------------------------------|--------------------|---------------------------------------|---------------|-----------------------------|-------|---------------------------------|---|
| Model name | Host link module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | |
| SU-5M/6M (general communication port 1) | - | RS-422 | Page 367 RS-422 connection diagram 5) | 1000m | - (Built into GOT) | | 90 PLCs for 1 GOT ^{*2} | |
| | | | | | GT15-RS4-9S | | | |
| SU-5M/6M (general communication port 3) | - | RS-422 | Page 367 RS-422 connection diagram 6) | 1000m | - (Built into GOT) | | | |
| | | | | | GT15-RS4-9S | | | |
| SU-5M/6M | U-01DM | RS-422 | Page 368 RS-422 connection diagram 7) | 1200m | - (Built into GOT) | | | 90 host link module for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | | |

*1 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.

For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*2 When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links.

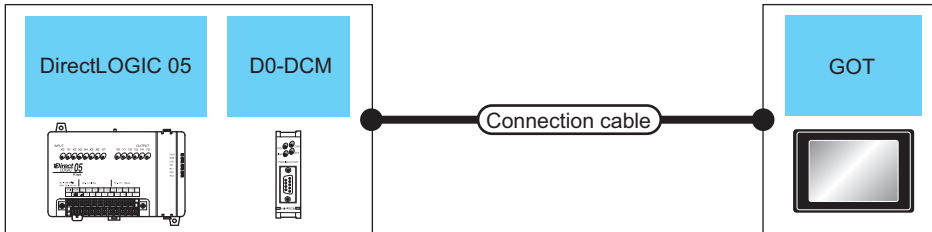
For details, refer to the following manual.

KOYO EI PLC user's Manual

*3 GT25-W, GT2505-V does not support the option device.

Connecting to DirectLOGIC 05 series

When connecting to one PLC



| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|---|--|--------------------|---|---------------|-----------------------------|-------|---------------------------------------|
| Model name | Data communications module ^{*2} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| Direct LOGIC 05 (communication port 1) (communication port 2) | - | RS-232 | Z-20JP (Programmable connecting cable) + S-9CNS1(Conversion connector) ^{*1} | 3m | -(Built into GOT) | | 1 PLC for 1 GOT |
| | | | | | GT15-RS2-9P | | |
| Direct LOGIC 05 | D0-DCM (port 1) | RS-232 | Z-20JP (Programmable connecting cable) + S-9CNS1(Conversion connector) ^{*1} | 3m | -(Built into GOT) | | 1 data communication module for 1 GOT |
| | | | | | GT15-RS2-9P | | |
| Direct LOGIC 05 | D0-DCM (port 2) | RS-232 | Page 364 RS-232 connection diagram 2) | 15m | -(Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| | | RS-422 | Page 366 RS-422 connection diagram 4) | 1000m | -(Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |

*1 The programmable connecting cable and conversion connector are products manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.

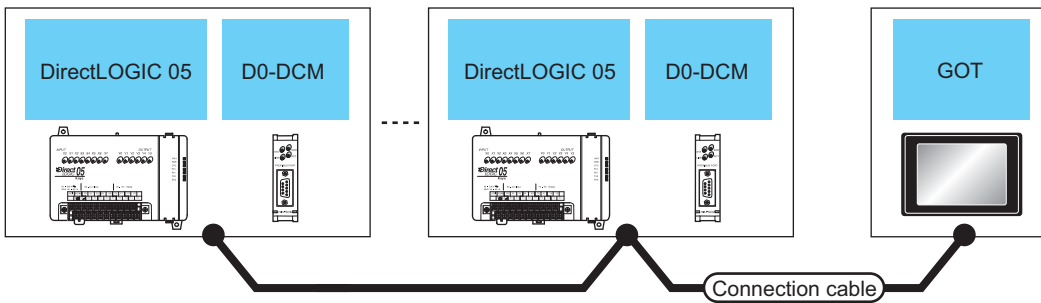
For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*2 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.

For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to multiple PLCs



| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|-----------------|--|--------------------|--|---------------|-----------------------------|-------|--|
| Model name | Data communications module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| Direct LOGIC 05 | D0-DCM (port 2) | RS-422 | Page 368 RS-422 connection diagram 8) | 1000m | - (Built into GOT) | | 90 data communication module for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | |

*1 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.
For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

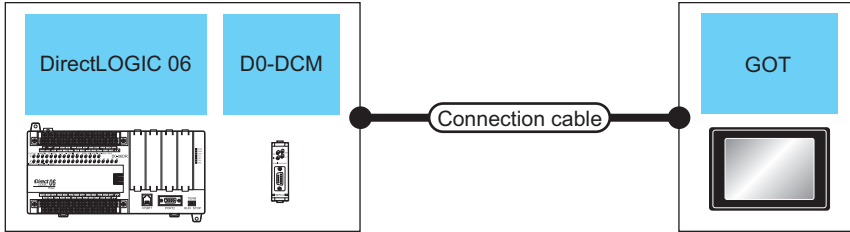
*2 When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links.
For details, refer to the following manual.

KOYO EI PLC user's Manual









*3 GT25-W, GT2505-V does not support the option device.

Connecting to DirectLOGIC 06 series

When connecting to one PLC



| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|---|-------------------------------|--------------------|---|---------------|-------------------|-------|---------------------------------|
| Model name | Data communications module *1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device *3 | Model | |
| Direct LOGIC 06 (communication port 1) | - | RS-232 | Z-20JP (Programmable connecting cable) + S-9CNS1(Conversion connector)*2 | 3m | -(Built into GOT) | | 1 PLC for 1 GOT |
| | | | | | GT15-RS2-9P | | |
| Direct LOGIC 06 (communication port 2) | - | RS-232 | (User prepare) Page 364 RS-232 connection diagram 2) | 15m | -(Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| | | RS-422 | (User prepare) Page 366 RS-422 connection diagram 4) | 1000m | -(Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |

| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|-----------------|--|--------------------|---|---------------|-----------------------------|---|---------------------------------------|
| Model name | Data communications module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| Direct LOGIC 06 | D0-DCM (port 1) | RS-232 | Z-20JP (Programmable connecting cable) + S-9CNS1(Conversion connector) ^{*2} | 3m | - (Built into GOT) |  | 1 data communication module for 1 GOT |
| | | | | | GT15-RS2-9P |  | |
| Direct LOGIC 06 | D0-DCM (port 2) | RS-232 |  Page 364 RS-232 connection diagram 2) | 15m | - (Built into GOT) |  | |
| | | | | | GT15-RS2-9P |  | |
| | | RS-422 |  Page 366 RS-422 connection diagram 4) | 1000m | - (Built into GOT) |  | |
| | | | | | GT15-RS4-9S |  | |

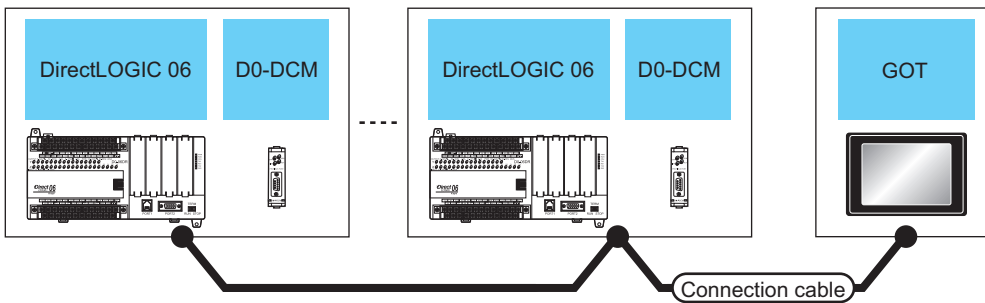
*1 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.
For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*2 The programmable connecting cable and conversion connector are products manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.

For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to multiple PLCs



| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|---|---|--------------------|--|---------------|-----------------------------|-------|--|
| Model name | Data communication module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| Direct LOGIC 06 (communication port 2) | - | RS-422 | Page 368 RS-422 connection diagram 8) | 1000m | - (Built into GOT) | | 90 PLCs for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | |
| Direct LOGIC 06 | D0-DCM (port 2) | RS-422 | Page 368 RS-422 connection diagram 8) | 1000m | - (Built into GOT) | | 90 data communication module for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | |

*1 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD. For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

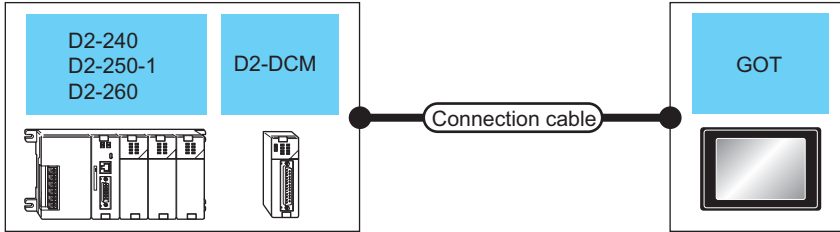
*2 When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links. For details, refer to the following manual.

KOYO EI PLC user's Manual

*3 GT25-W, GT2505-V does not support the option device.

Connecting to D2-240, D2-250-1 or D2-260

When connecting to one PLC



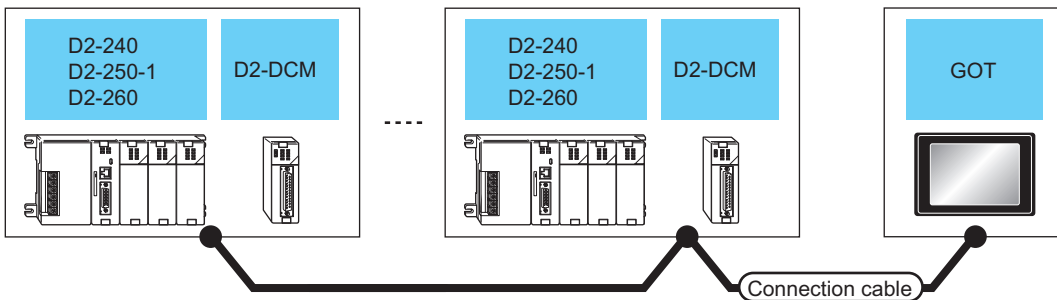
| PLC | | | Connection cable | | GOT | | Number of connectable equipment | | | | |
|--|---|--------------------|---|---|-------------------|---|---------------------------------|-------|-------|-------|---------------------------------------|
| Model name | Data communications module *1 | Communication Type | Cable model Connection diagram number | Max. distance | Option device *2 | Model | | | | | |
| D2-240 D2-250-1 D2-260 (communication port 2) | - | RS-232 | (User's manual) Page 364 RS-232 connection diagram 2) | 3m | -(Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 1 PLC for 1 GOT |
| | | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |
| D2-250-1 D2-260 (communication port 2) | - | RS-422 | (User's manual) Page 366 RS-422 connection diagram 4) | 1000m | -(Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 1 PLC for 1 GOT |
| | | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| GT15-RS4-9S | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |
| D2-240 D2-250-1 D2-260 | D2-DCM | RS-232 | (User's manual) Page 364 RS-232 connection diagram 1) | 15m | -(Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 1 data communication module for 1 GOT |
| | | | | | GT 27 | GT 25 | | | | | |
| | | GT 23 | GS 25 | | | | | | | | |
| | | GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |
| RS-422 | (User's manual) Page 366 RS-422 connection diagram 3) | 1200m | -(Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | | | |
| | | | GT 27 | GT 25 | | | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| GT15-RS4-9S | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |

*1 The programmable connecting cable and conversion connector are products manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD.

For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

*2 GT25-W, GT2505-V does not support the option device.

When connecting to multiple PLCs



| PLC | | | Connection cable | | GOT | | Number of connectable equipment |
|--|--|--------------------|--|---------------|-----------------------------|-------|--|
| Model name | Data communications module ^{*1} | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | |
| D2-250-1 D2-260 (communication port 2) | - | RS-422 | Page 368 RS-422 connection diagram 8) | 1000m | - (Built into GOT) | | 90 PLCs for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | |
| D2-240 D2-250-1 D2-260 | D2-DCM | RS-422 | Page 368 RS-422 connection diagram 7) | 1200m | - (Built into GOT) | | 90 data communication module for 1 GOT ^{*2} |
| | | | | | GT15-RS4-9S | | |

*1 The data communications module is manufactured by KOYO ELECTRONICS INDUSTRIES CO., LTD. For details of the product, contact KOYO ELECTRONICS INDUSTRIES CO., LTD.

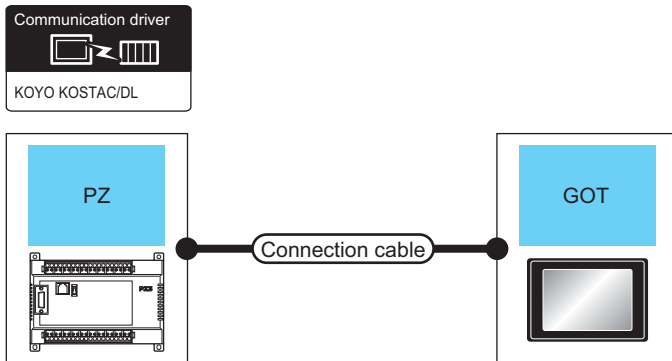
*2 When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links. For details, refer to the following manual.















KOYO EI PLC user's Manual

*3 GT25-W, GT2505-V does not support the option device.

Connecting to PZ

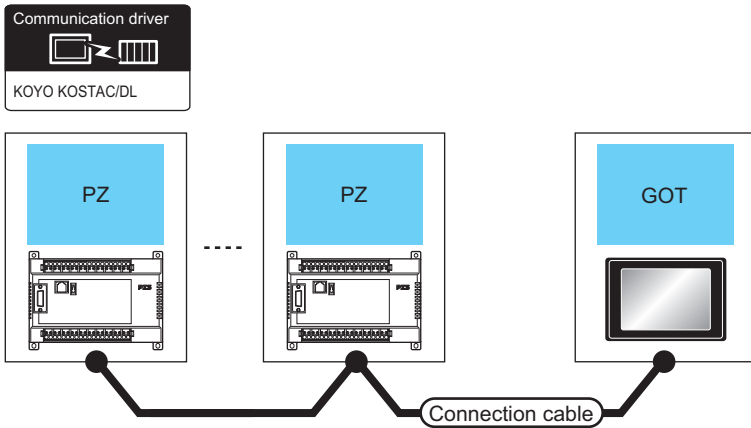
When connecting to one PLC










| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|--------------------------------------|--------------------|---|---------------|-----------------------------|--|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*1} | Model | |
| PZ (general communication port 2) | RS-232 |  Page 364 RS-232 connection diagram 2) | 15m | -(Built into GOT) |     | 1 PLC for 1 GOT |
| | | | | GT15-RS2-9P |   | |
| | RS-422 |  Page 366 RS-422 connection diagram 4) | 1000m | -(Built into GOT) |     | |
| | | | | GT15-RS4-9S |   | |

*1 GT25-W, GT2505-V does not support the option device.

When connecting to multiple PLCs



| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|--------------------------------------|--------------------|---|---------------|-----------------------------|--|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | |
| PZ (general communication port 2) | RS-422 |  Page 368 RS-422 connection diagram 8) | 1000m | - (Built into GOT) |     | 90 PLCs for 1 GOT ^{*1} |
| | | | | GT15-RS4-9S |   | |

*1 When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links. For details, refer to the following manual.

 KOYO EI PLC user's Manual

*2 GT25-W, GT2505-V does not support the option device.

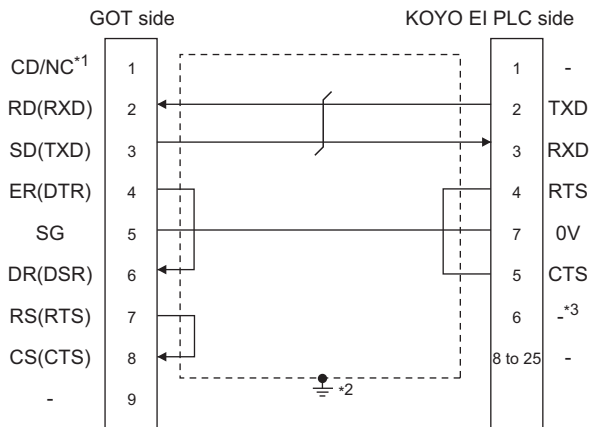
7.3 Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

RS-232 cable

Connection diagram

■RS-232 connection diagram 1)

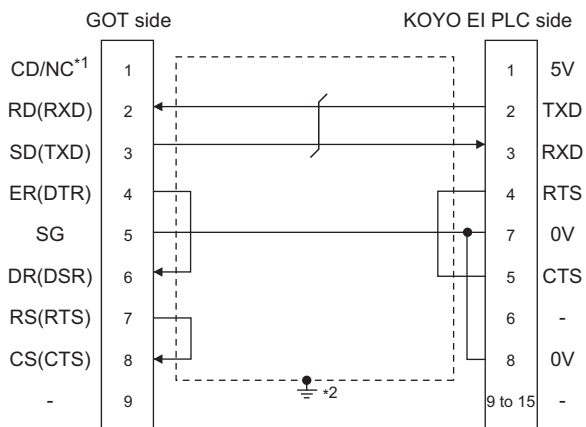


*1 GT27: CD, GT23:NC

*2 Connect FG grounding to the appropriate part of a cable shield line.

*3 For U-01DM and D2-DCM, the signal name will be +5V.

■RS-232 connection diagram 2)



*1 GT27: CD, GT23:NC

*2 Connect FG grounding to the appropriate part of a cable shield line.

Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 15m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■KOYO EI PLC side connector

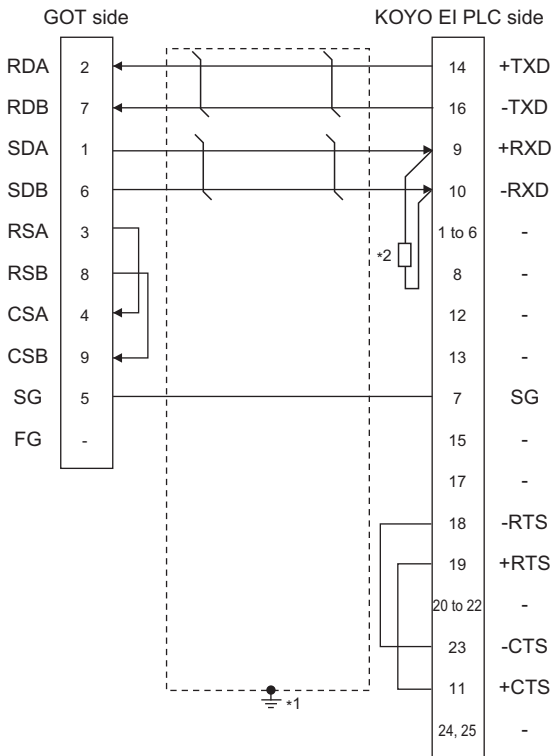
Use the connector compatible with the KOYO EI PLC side.

For details, refer to the KOYO EI PLC user's manual.

RS-422 cable

Connection diagram

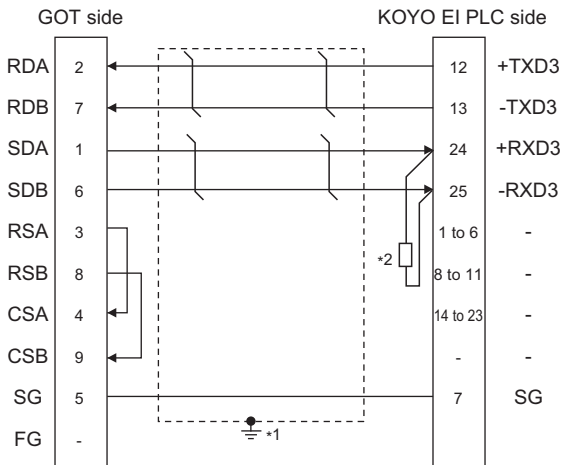
■RS-422 connection diagram 1)



*1 Connect FG grounding to the appropriate part of a cable shield line.

*2 Connect a terminating resistor (approximately 150Ω) to the PLC at a terminal station.

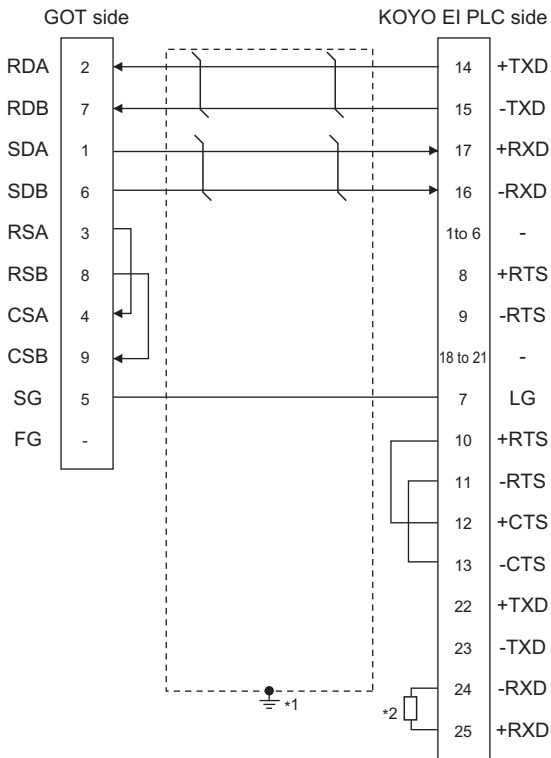
■RS-422 connection diagram 2)



*1 Connect FG grounding to the appropriate part of a cable shield line.

*2 Connect a terminating resistor (approximately 150Ω) to the PLC at a terminal station.

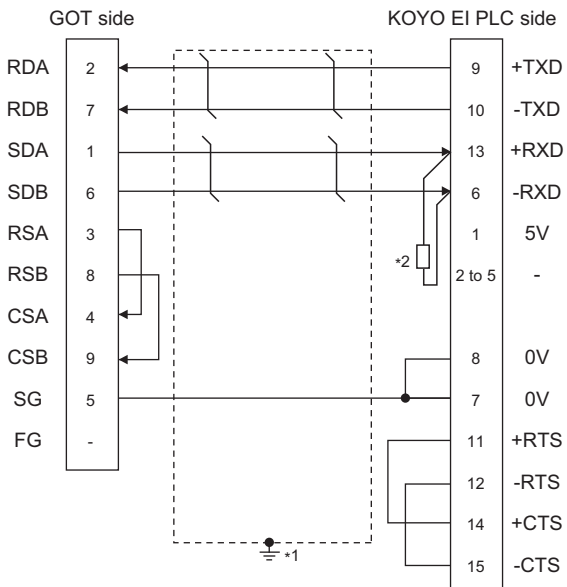
■RS-422 connection diagram 3)



*1 Connect FG grounding to the appropriate part of a cable shield line.

*2 Connect a terminating resistor (approximately 150Ω) to the PLC at a terminal station.

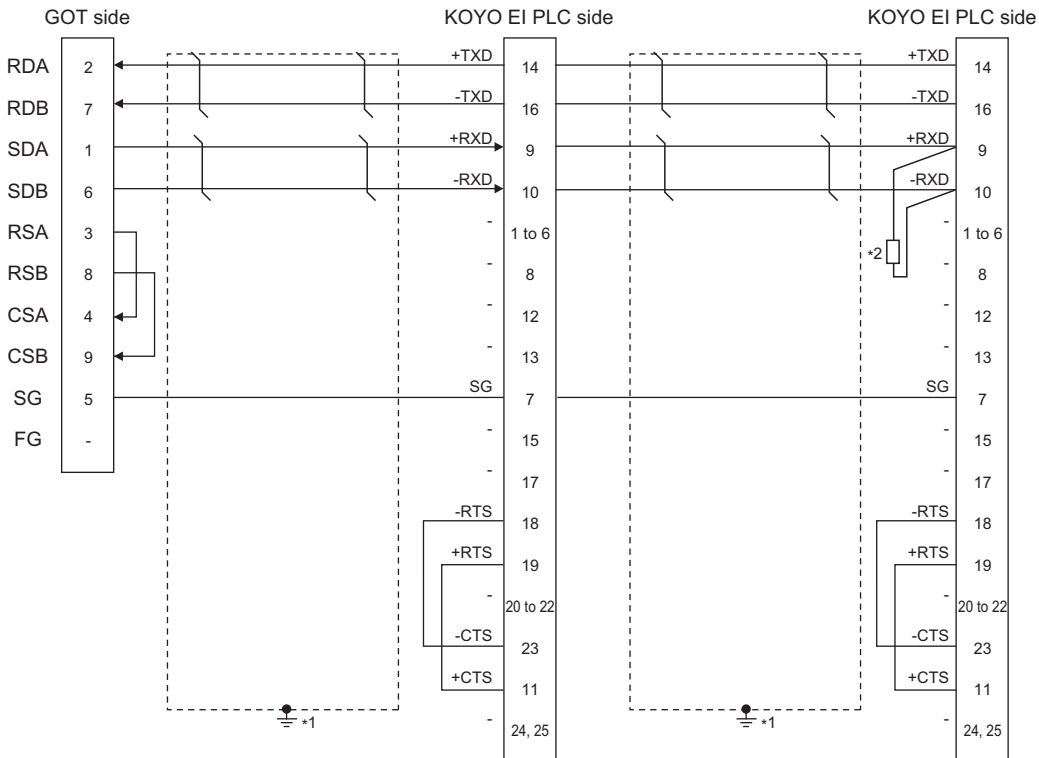
■RS-422 connection diagram 4)



*1 Connect FG grounding to the appropriate part of a cable shield line.

*2 Connect a terminating resistor (approximately 100 to 500Ω) to the PLC to be a terminal.

■RS-422 connection diagram 5)

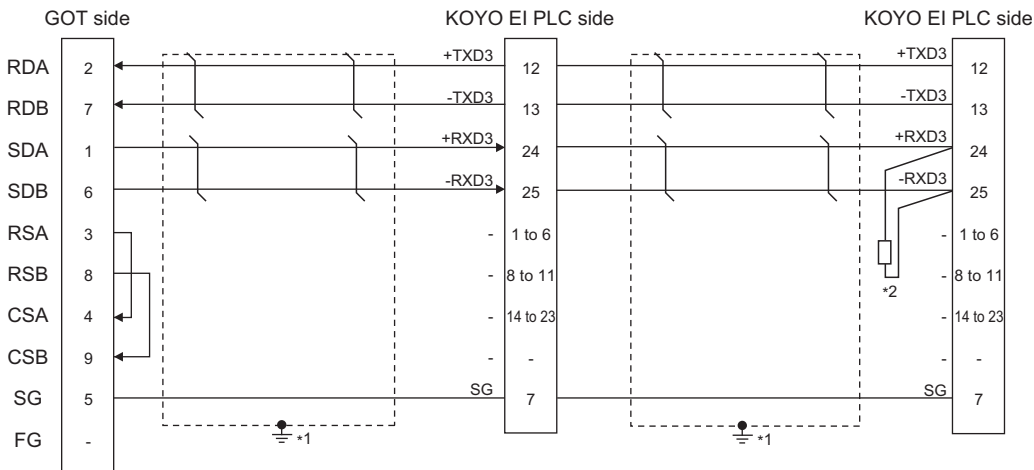


*1 Connect FG grounding to the appropriate part of a cable shield line.

*2 Connect a terminating resistor (approximately 150Ω) to the PLC at a terminal station.
When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links.
For details, refer to the following manual.

📖 KOYO EI PLC user's Manual

■RS-422 connection diagram 6)

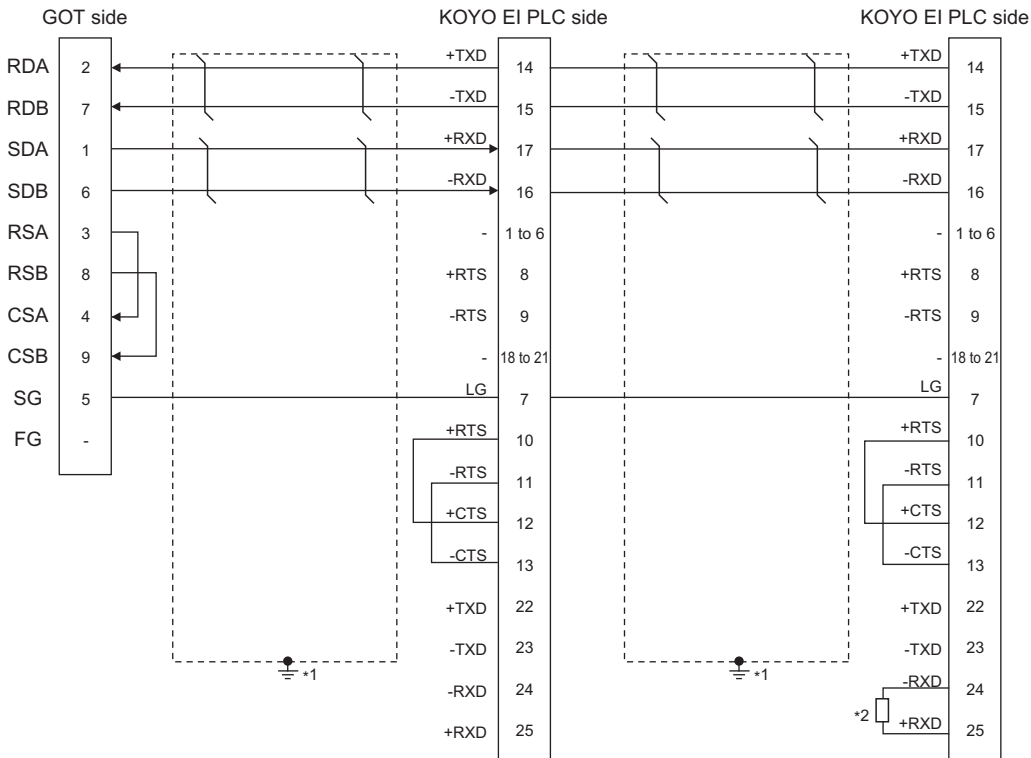


*1 Connect FG grounding to the appropriate part of a cable shield line.

*2 Connect a terminating resistor (approximately 150Ω) to the PLC at a terminal station.
When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links.
For details, refer to the following manual.

📖 KOYO EI PLC user's Manual

RS-422 connection diagram 7)



*1 Connect FG grounding to the appropriate part of a cable shield line.

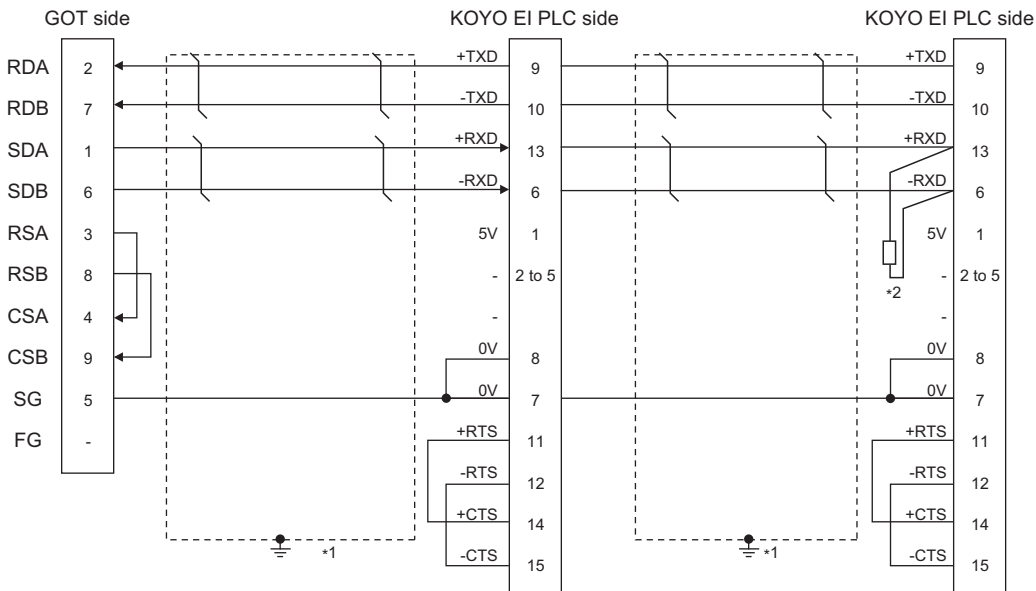
*2 Connect a terminating resistor (approximately 150Ω) to the PLC at a terminal station.

When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links.

For details, refer to the following manual.

📖 KOYO EI PLC user's Manual

RS-422 connection diagram 8)



*1 Connect FG grounding to the appropriate part of a cable shield line.

*2 Connect a terminating resistor (approximately 100 to 500Ω) to the PLC to be a terminal.

When the number of links exceeds 30, use a transmission line conversion unit D-01CV per 30 links.

For details, refer to the following manual.

📖 KOYO EI PLC user's Manual

Precautions when preparing a cable

■Cable length

The maximum length of the RS-422 cable differs according to the specifications of the KOYO EI PLC side module.

For details, refer to the following manual.

 KOYO EI PLC user's Manual

■GOT side connector

For the GOT side connector, refer to the following.

 Page 58 GOT connector specifications

■KOYO EI PLC side connector

Use the connector compatible with the KOYO EI PLC side.

For details, refer to the KOYO EI PLC user's manual.

Connecting terminating resistors

■GOT side


- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Disable".

- For GT2505-V

Set the terminating resistor selector to "330Ω".

For the procedure to set the terminating resistor, refer to the following.

 Page 62 Terminating resistors of GOT

■KOYO EI PLC

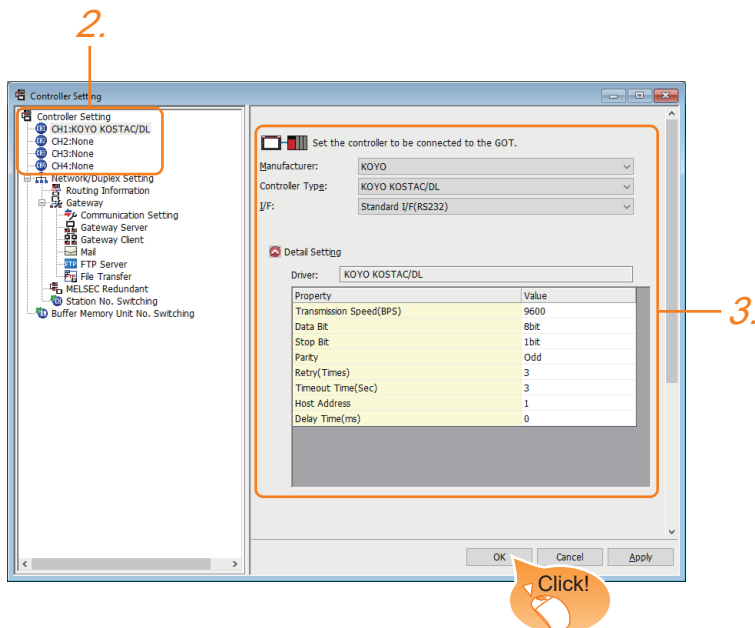
To connect a KOYO EI PLC to a GOT, a terminating resistor must be set to the KOYO EI PLC.

 KOYO EI PLC user's Manual

7.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
 2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
 3. Set the following items.
 - [Manufacturer]: [KOYO]
 - [Controller Type]: [KOYO KOSTAC/DL]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.
- ☞ Page 371 Communication detail settings
4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].
For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | Odd |
| Retry(Times) | 3 |
| Timeout Time(Sec) | 3 |
| Host Address | 1 |
| Delay Time(ms) | 0 |


| Item | Description | Range |
|--------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bit) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Odd) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 3times) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 50sec |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300ms |
| Host Address | Specify the host address (station No. of the GOT to which the PLC is connected) in the connected network. (Default: 1) | 1 to 90 |

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

7.5 PLC Side Setting



KOYO EI PLC

For details of KOYO EI PLCs, refer to the following manuals.

KOYO EI PLC user's Manual

| Model name | | Refer to |
|----------------------------|--|---|
| PLC CPU | KOSTAC SU Series | SU-5E/6B Page 373 Connecting to SU-5E/6B |
| | | SU-5M/6M Page 374 Connecting to SU-5M/6M |
| | DirectLOGIC 05 Series DirectLOGIC 06 Series | Page 374 Connecting to DirectLOGIC 05 series or DirectLOGIC 06 series |
| | DirectLOGIC 205 Series | Page 375 Connecting to DirectLOGIC 205 series |
| | PZ series | Page 375 Connecting to PZ Series |
| Host Link Module | U-01DM | Page 376 Connecting to U-01DM |
| Data Communications Module | D0-DCM | Page 378 Connecting to D0-DCM |
| | D2-DCM | Page 378 Connecting to D2-DCM |

Connecting to SU-5E/6B

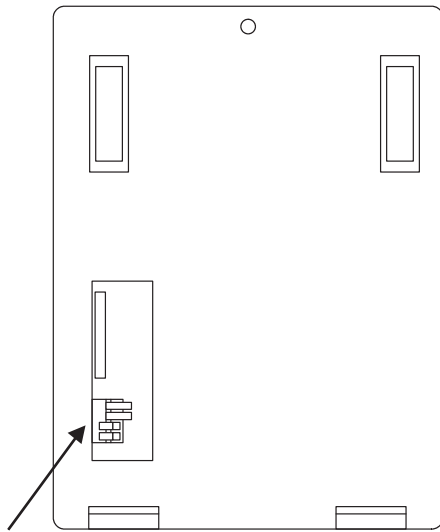
Communication settings

Make the following settings using the programmer system parameter setting.

| Item | Set value |
|-------------------|------------------|
| Station No. | 1 to 90 |
| Transmission mode | HEX |
| Parity | NONE, ODD |
| Data bit | 8 bit (Fixation) |
| Stop bit | 1 bit (Fixation) |

Setting DIP switches

Set the transmission speed using the CPU DIP switch.



CPU DIP switch



| Item | Set value | Switch No. | |
|----------------------|-----------|------------|-----|
| | | 3 | 4 |
| Transmission speed*1 | 9600bps | ON | OFF |
| | 19200bps | ON | ON |


*1 Indicates only the transmission speeds that can be set on the GOT side.
 Set the same transmission speed of the GOT.
 For the transmission speed setting on the GOT side, refer to the following.
 📖 Page 370 Setting communication interface (Communication settings)

Connecting to SU-5M/6M

Communication settings

Make the following settings using the programmer system parameter setting.

| Item | Set value |
|----------------------|---|
| Protocol | CCM |
| Response delay time | 0ms |
| Timeout Time | 800ms/960ms/1200ms/1600ms/4000ms/8000ms/16000ms/40000ms |
| Station No. | 1 to 90 |
| Transmission mode | HEX |
| Stop bit | 1bit, 2bits |
| Data bit | 8bits (Fixed) |
| Parity | NONE, ODD, EVEN |
| Transmission speed*1 | 9600bps, 19200bps, 38400bps |


- *1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 370 Setting communication interface (Communication settings)

Connecting to DirectLOGIC 05 series or DirectLOGIC 06 series

Communication settings

Make the following settings using the programmer system parameter setting.

| Item | Set value |
|----------------------|-----------------------------|
| Protocol | CCM NET (DirectNET) |
| Timeout | 780ms or more |
| RTS On Delay Time | 0ms*1 |
| RTS Off Delay Time | 0ms*1 |
| Station No. | 1 to 90 |
| Transmission speed*2 | 9600bps, 19200bps, 38400bps |
| Stop bit | 1bit, 2bits |
| Parity | NONE, ODD, EVEN |
| Communication format | HEX |


- *1 To use a PLC with multidrop, set the "RTS on delay time" to 5ms or more and the "RTS off delay time" to 2ms or more.
*2 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 370 Setting communication interface (Communication settings)

Connecting to DirectLOGIC 205 series

Communication settings

Make the following settings using the programmer system parameter setting.

| Item | Set value |
|----------------------|-----------------------------|
| Protocol | CCM NET (DirectNET) |
| Station No. | 1 to 90 |
| Transmission speed*1 | 9600bps, 19200bps, 38400bps |
| Data bit | 8bits (fixed) |
| Stop bit | 1bit (fixed) |
| Parity | NONE, ODD |
| Self-diagnostic mode | OFF |
| Response delay time | 0ms |
| Peer to Peer | OFF |
| Master/Slave | Slave |
| Timeout | Enable |
| Transmission mode | HEX |
| MODBUS | OFF |

*1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 370 Setting communication interface (Communication settings)


7

Connecting to PZ Series

Communication settings

Make the following settings using the programmer system parameter setting.

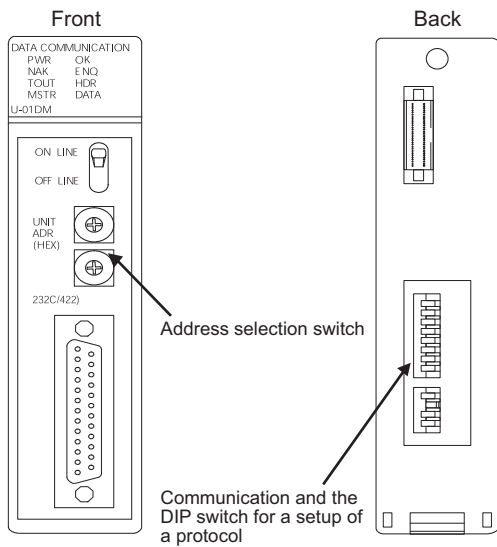
| Item | Set value |
|----------------------|---|
| Protocol | CCM NET |
| Timeout | 800ms/960ms/1200ms/1600ms/4000ms/8000ms/16000ms/40000ms |
| Response delay time | 0ms |
| Station No. | 1 to 90 |
| Communication format | HEX |
| Transmission speed*1 | 9600bps, 19200bps, 38400bps |
| Stop bit | 1bit |
| Parity | NONE, ODD |

*1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 370 Setting communication interface (Communication settings)

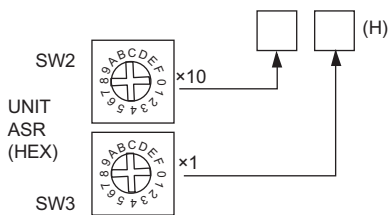
Connecting to U-01DM

Setting switches

Make the communication settings using each setting switch.

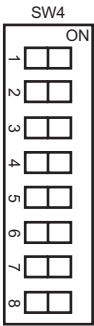


■ Address selection switch(SW2, SW3)



| Switch No. | Settings | Setting details |
|------------|--|-----------------|
| SW2 | Code higher rank (10 ¹ figures) | 01 to 5A |
| SW3 | Code low rank (10 ⁰ figures) | |

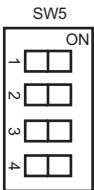
■Communication and the DIP switch for a setup of a protocol(SW4)



| Setting item | Set value | Switch No. | | | | | | | |
|----------------------|-----------|------------|-----|-----|-----|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Transmission speed*1 | 9600bps | OFF | ON | ON | | | | | |
| | 19200bps | ON | ON | ON | | | | | |
| | 38400bps | OFF | OFF | OFF | | | | | |
| Parity | ODD | | | | ON | | | | |
| | NONE | | | | OFF | | | | |
| Self-diagnostic | OFF | | | | | OFF | | | |
| Response delay time | 0ms | | | | | | OFF | OFF | OFF |

- *1 Indicates only the transmission speeds that can be set on the GOT side.
 Set the same transmission speed of the GOT.
 For the transmission speed setting on the GOT side, refer to the following.
 Page 370 Setting communication interface (Communication settings)

■Communication and the DIP switch for a setup of a protocol(SW5)



| Item | Set value | Switch No. | | | |
|----------------|-----------|------------|-----|-----|-----|
| | | 1 | 2 | 3 | 4 |
| Peer to Peer | OFF | OFF | | | |
| M/S | Slave | | OFF | | |
| TOUT existence | Enable | | | OFF | |
| ASCII/HEX | HEX | | | | OFF |


Connecting to D0-DCM

Communication settings

Write the following communication settings to the specified register using the programmer. For details of the register, refer to the following manual.

 KOYO EI PLC user's Manual

| Item | Set value |
|---|---|
| Transmission mode | HEX |
| Protocol | DirectNet |
| Station No. | 1 to 90 |
| Transmission speed*1 | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Parity | NONE, ODD, EVEN (Only communication port 2) |
| RTS On Delay Time (Only communication port 2) | 0ms |
| RTS Off Delay Time (Only communication port 2) | 0ms |
| Timeout (Only communication port 2) | 800ms/960ms/1200ms/1600ms/4000ms/8000ms/16000ms/40000ms |
| 485 mode selection (Only communication port 2) | RS232, RS422/485 4 line type |
| Data bit (Only communication port 2) | 8bits, 7bits |
| Stop bit (Only communication port 2) | 1bit, 2bits |
| The timeout between characters (Only communication port 2) | 0 to 9999ms |
| The completion of a setting | Default use, A preset value is effective |
| Reset timeout | Invalid, Effective |


- *1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 370 Setting communication interface (Communication settings)

Connecting to D2-DCM

Communication settings

Make the following settings using the programmer.

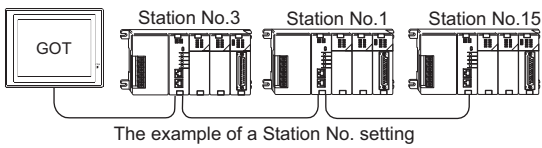
| Item | Set value |
|----------------------|-----------------------------|
| Station No. | 1 to 90 |
| Transmission speed*1 | 9600bps, 19200bps, 38400bps |
| Data bit | 8bits (fixed) |
| Stop bit | 1bit (fixed) |
| Parity | NONE, ODD |
| Self-diagnostic mode | OFF |
| Response delay time | 0ms |
| Peer to Peer | OFF |
| Master/Slave | Slave |
| Timeout | Enable |
| Transmission mode | HEX |
| MODBUS | OFF |

- *1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 370 Setting communication interface (Communication settings)

Station No. settings

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.



Direct specification

Specify the station No. of the PLC to be changed when setting device.

Specification range

1 to 90

7.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 655 KOYO EI equipment ([KOYO KOSTAC/DL])

7.7 Precautions

GOT clock control

























The GOT clock function is available only for the PLC with a calendar function. Note: Although the "time adjusting" and "time broadcast" functions can be selected on the GOT, the "time broadcast" function is not available. Do not select the "time broadcast" function. If both of the functions are selected, not only the "time broadcast" function but also the "time adjusting" function will be disabled.

8 JTEKT PLC

- Page 381 Connectable Model List
- Page 382 System Configuration
- Page 393 Connection Diagram
- Page 399 GOT Side Settings
- Page 401 PLC Side Setting
- Page 410 Settable Device Range
- Page 410 Precautions

8.1 Connectable Model List

The following table shows the connectable models.

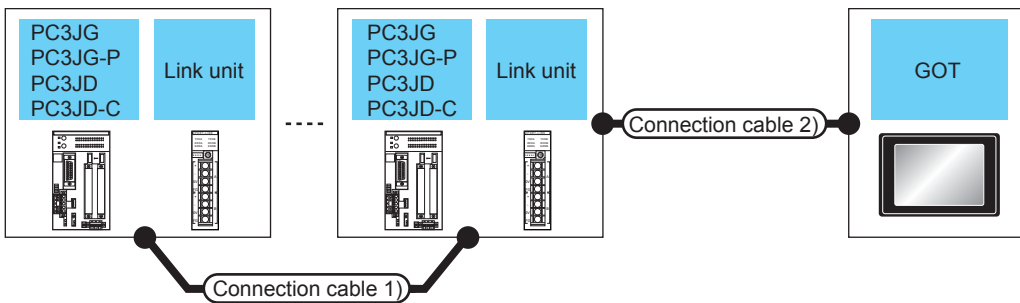
| Model name | | Model type | Clock | Communication Type | Connectable GOT | Refer to |
|------------|-----------|------------|-------|--------------------|--|---|
| PC3JG | PC3JG-P | TIC-6088 | ○ | RS-232 RS-422 |     | ☞ Page 382 Connecting to PC3JG, PC3JD |
| | PC3JG | TIC-6125 | | | | |
| PC3JD | PC3JD | TIC-5642 | ○ | RS-232 RS-422 |     | ☞ Page 382 Connecting to PC3JG, PC3JD |
| | PC3JD-C | TIC-6029 | | | | |
| PC3J | PC3J*1 | TIC-5339 | ○ | RS-232 RS-422 |     | ☞ Page 384 Connecting to PC3J |
| | PC3JL | TIC-5783 | | | | |
| PC2J | PC2J | THC-2764 | ○ | RS-232 RS-422 |     | ☞ Page 386 Connecting to PC2J (PC2J, PC2JS, or PC2JR) |
| | PC2JS | THC-2994 | | | | |
| | PC2JR | THC-5053 | | | | |
| | PC2JC | THC-5070 | ○ | RS-232 RS-422 |     | ☞ Page 388 Connecting to PC2J (PC2JC, PC2J16P, or PC2J16PR) |
| | PC2J16P | THC-5169 | | | | |
| PC2J16PR | THC-5173 | | | | | |
| PC10G | PC10G-CPU | TCC-6353 | ○ | RS-232 RS-422 |     | ☞ Page 390 Connecting to PC10G |

*1 Use PC3J of the version 2.1 or later.

8.2 System Configuration

Connecting to PC3JG, PC3JD

For the RS-422 connection



| PLC ^{*3} | | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment | |
|-------------------|--------------------------------------|----------------------------|--|--|---|-----------------------------|--------------------|---------------------------------|-------------------|
| Model name | Link unit ^{*1} | Communication Type | Cable model Connection diagram number | Cable model Connection diagram number | | Option device ^{*2} | Model | | |
| PC3JG PC3JD | PC3JG PC3JG-P PC3JD PC3JD-C | PC/CMP2-LINK (THU-5139) | RS-422 | Page 396 RS-422 connection diagram 4) | GT09-C30R41201-6C(3m) GT09-C100R41201-6C(10m) GT09-C200R41201-6C(20m) GT09-C300R41201-6C(30m) or Page 397 RS-422 connection diagram 7) | 500m | - (Built into GOT) | | 32 PLCs for 1 GOT |
| | | | | | | | GT15-RS4-9S | | |

*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*2 GT25-W, GT2505-V does not support the option device.

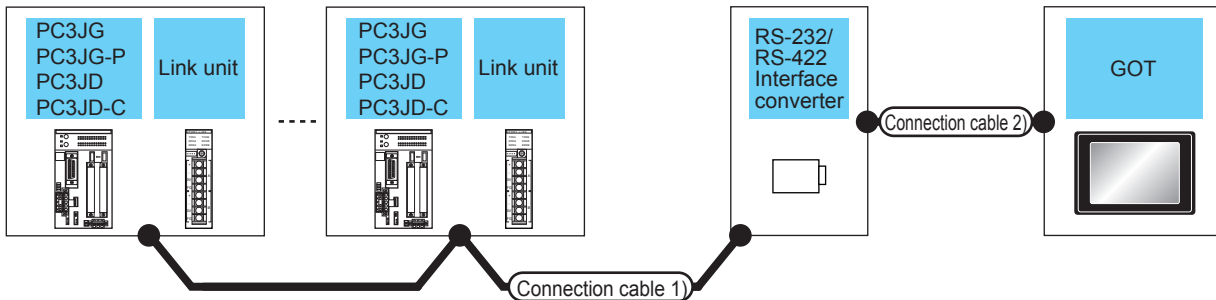
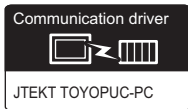
*3 When connecting multiple PLCs, set the same operation mode for all the PLCs.

In GT Designer3, set [Format] in [Detail Setting] according to the operation mode set for the PLCs.

For details, refer to the following.

Page 400 Communication detail settings

For the RS-232 connection (via an interface converter)



| PLC | | Connection cable 1) | | RS-232/RS-422 interface converter* ² | | Connection cable 2) | | GOT | | Number of connectable equipment |
|----------------|---|--|---------------|---|--------------------|---|---------------|-----------------------------|----------------------------|---------------------------------|
| Model name | Link unit* ¹ | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device* ³ | Model | |
| PC3JG PC3JD | PC3JG PC3JG-P PC3JD PC3JD-C | - (User preparing) Page 395 RS-422 connection diagram 1) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | 32 PLCs for 1 GOT |
| | | | | | | | | GT15-RS2-9P | GT 27 GT 25 | |
| | | | | | | | | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | |
| | PC/CMP-LINK (THU-2755) 2PORT-LINK (THU-2927) | (User preparing) Page 395 RS-422 connection diagram 2) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | |
| | PC/CMP2-LINK (THU-5139) | (User preparing) Page 396 RS-422 connection diagram 3) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | |
| | | | | | | | | GT15-RS2-9P | GT 27 GT 25 | |

*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

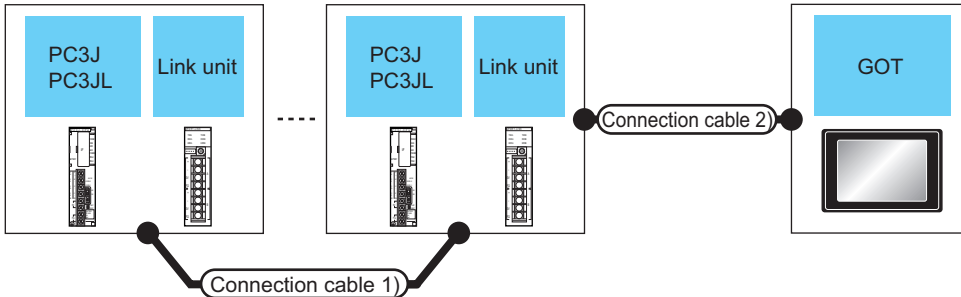
*2 The interface converter is a product manufactured by JTEKT CORPORATION.

For details of the product, contact JTEKT CORPORATION.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to PC3J

For the RS-422 connection



| PLC*3 | | | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|------------|-------------------------|--------------------|---------------------------------------|---|---|-----------------|------------------|------------------|---------------------------------|
| Model name | Link unit*1 | Communication Type | Cable model Connection diagram number | Cable model Connection diagram number | | Option device*2 | Model | | |
| PC3J | PC3J PC3JL | - | RS-422 | Page 396 RS-422 connection diagram 6) | GT09-C30R41201-6C(3m) GT09-C100R41201-6C(10m) GT09-C200R41201-6C(20m) GT09-C300R41201-6C(30m) or Page 397 RS-422 connection diagram 7) | 500m | - | (Built into GOT) | 32 PLCs for 1 GOT |
| | | | | | | | | | |
| | PC/CMP2-LINK (THU-5139) | RS-422 | Page 396 RS-422 connection diagram 4) | GT09-C30R41201-6C(3m) GT09-C100R41201-6C(10m) GT09-C200R41201-6C(20m) GT09-C300R41201-6C(30m) or Page 397 RS-422 connection diagram 7) | 500m | - | (Built into GOT) | | |
| | | | | | | | | GT15-RS4-9S | |

*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*2 GT25-W, GT2505-V does not support the option device.

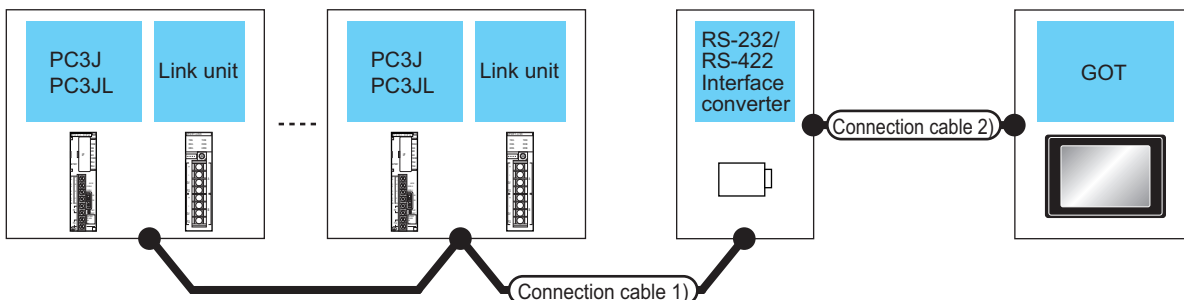
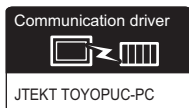
*3 When connecting multiple PLCs, set the same operation mode for all the PLCs.

In GT Designer3, set [Format] in [Detail Setting] according to the operation mode set for the PLCs.

For details, refer to the following.

Page 400 Communication detail settings

For the RS-232 connection (via interface converter)



| PLC | | Connection cable 1) | | RS-232/RS-422 interface converter *2 | | Connection cable 2) | | GOT | | Number of connectable equipment |
|---|---|---|---------------|--------------------------------------|---|---|--------------------|--------------------|-------|---------------------------------|
| Model name | Link unit*1 | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device*3 | Model | |
| PC3J | PC3J PC3JL | (User preparing) Page 395 RS-422 connection diagram 1) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | 32 PLCs for 1 GOT |
| | | | | | | | | GT15-RS2-9P | | |
| | | (User preparing) Page 396 RS-422 connection diagram 5) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | |
| | | | | | | | | GT15-RS2-9P | | |
| PC/CMP-LINK (THU-2755) 2PORT-LINK (THU-2927) | (User preparing) Page 395 RS-422 connection diagram 2) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | | |
| | | | | | | | GT15-RS2-9P | | | |
| PC/CMP2-LINK (THU-5139) | (User preparing) Page 396 RS-422 connection diagram 4) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | | | |
| | | | | | | | GT15-RS2-9P | | | |

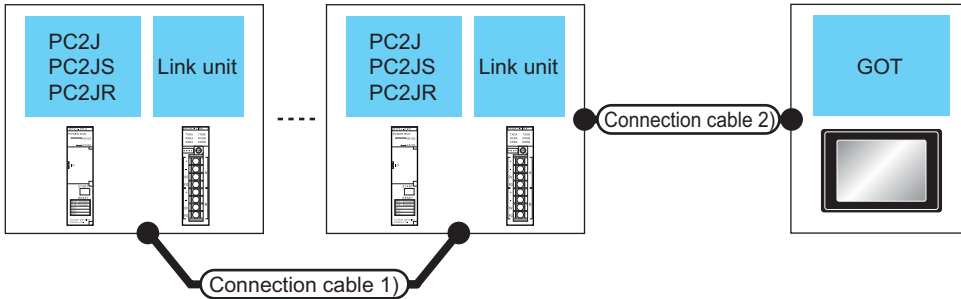
*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*2 The interface converter is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to PC2J (PC2J, PC2JS, or PC2JR)

For the RS-422 connection

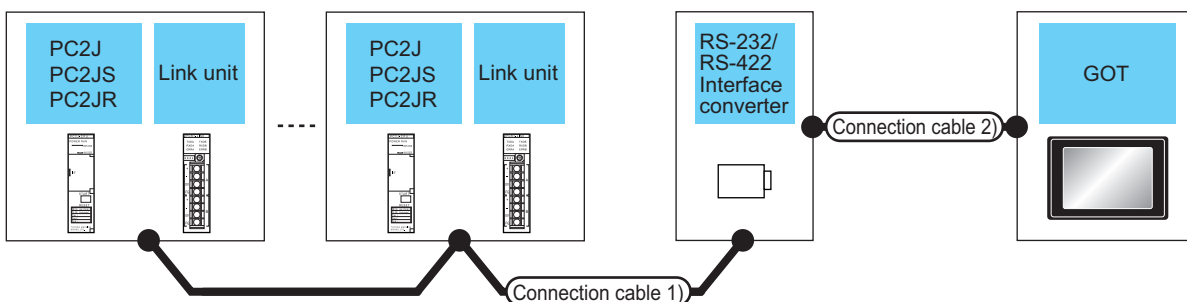
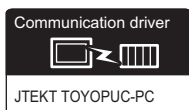


| PLC | | Link unit ^{*1} | Communication Type | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|------------|------------------------|----------------------------|--------------------|---------------------------------------|---|---------------|-----------------------------|-------|---------------------------------|
| Model name | | | | Cable model Connection diagram number | Cable model Connection diagram number | | Option device ^{*2} | Model | |
| PC2J | PC2J PC2JS PC2JR | PC/CMP2-LINK (THU-5139) | RS-422 | Page 396 RS-422 connection diagram 4) | GT09-C30R41201-6C(3m) GT09-C100R41201-6C(10m) GT09-C200R41201-6C(20m) GT09-C300R41201-6C(30m) or Page 397 RS-422 connection diagram 7) | 500m | - (Built into GOT) | | 32 PLCs for 1 GOT |
| | | | | | | | GT15-RS4-9S | | |

*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*2 GT25-W, GT2505-V does not support the option device.

For the RS-232 connection (via interface converter)



| PLC | | Connection cable 1) | | RS-232/RS-422 interface converter ^{*2} | | Connection cable 2) | | GOT | | Number of connectable equipment | | | | | |
|-------------|---|---|---|---|--------------------|--|---|-----------------------------|--------------------|---|-------|-------|-------|-------|-------------------|
| Model name | Link unit ^{*1} | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | | | | | |
| PC2J | PC2J PC2JS PC2JR | PC/CMP-LINK (THU-2755) 2PORT-LINK (THU-2927) | (User preparing) Page 395 RS-422 connection diagram 2) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 32 PLCs for 1 GOT |
| | | | | | | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | |
| - | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | | | | | | | | | |
| | GT 27 | GT 25 | | | | | | | | | | | | | |
| GT 23 | GS 25 | | | | | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | | |

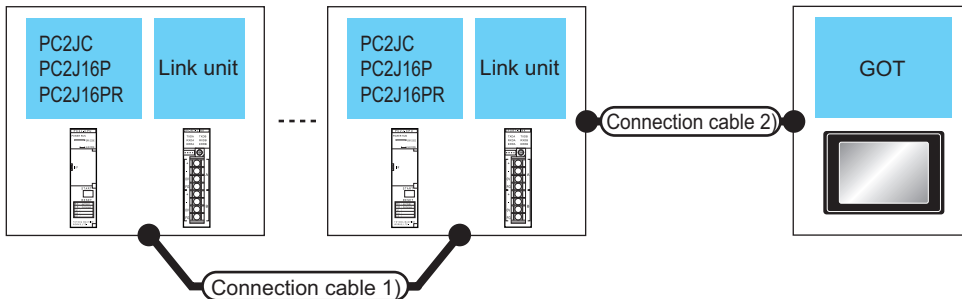
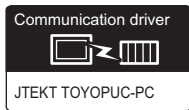
*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*2 The interface converter is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to PC2J (PC2JC, PC2J16P, or PC2J16PR)

For the RS-422 connection

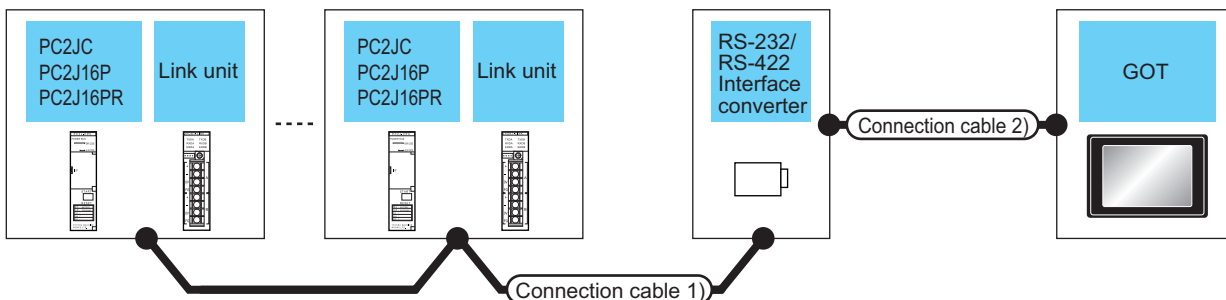
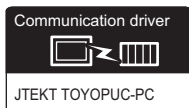


| PLC | | Link unit ^{*1} | Communication Type | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment | | | | |
|------------|------------------------------|-------------------------|--------------------|---|---|---------------|--|---|---------------------------------|-------|-------|-------|-------------------|
| Model name | | | | Cable model Connection diagram number | Cable model Connection diagram number | | Option device ^{*2} | Model | | | | | |
| PC2J | PC2JC PC2J16P PC2J16PR | PC/CMP2-LINK (THU-5139) | RS-422 | <small>(User prepare)</small> Page 396 RS-422 connection diagram 4) | <small>(User prepare)</small> Page 397 RS-422 connection diagram 7) | 500m | - (Built into GOT) | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> <tr> <td>GT 23</td> <td>GS 25</td> </tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 32 PLCs for 1 GOT |
| GT 27 | GT 25 | | | | | | | | | | | | |
| GT 23 | GS 25 | | | | | | | | | | | | |
| | | | | | | GT15-RS4-9S | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> </table> | GT 27 | GT 25 | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | |

*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

*2 GT25-W, GT2505-V does not support the option device.

For the RS-232 connection (via interface converter)



| PLC | | Connection cable 1) | | RS-232/RS-422 interface converter ^{*2} | | Connection cable 2) | | GOT | | Number of connectable equipment | |
|------------|---|---|---|---|--------------------|---|---|-----------------------------|----------------------------|---------------------------------|-------------------|
| Model name | Link unit ^{*1} | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3} | Model | | |
| PC2J | PC2JC PC2J16P PC2J16PR | - | (User preparing) Page 395 RS-422 connection diagram 1) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | 32 PLCs for 1 GOT |
| | | | | | | | | | GT15-RS2-9P | GT 27 GT 25 | |
| | | | | | | | | | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | |
| PC2J | PC/CMP-LINK (THU-2755) 2PORT-LINK (THU-2927) | (User preparing) Page 395 RS-422 connection diagram 2) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | 32 PLCs for 1 GOT | |
| | | | | | | | | GT15-RS2-9P | GT 27 GT 25 | | |
| | | | | | | | | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | | |
| PC2J | PC/CMP2-LINK (THU-5139) | (User preparing) Page 396 RS-422 connection diagram 3) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | 32 PLCs for 1 GOT | |
| | | | | | | | | GT15-RS2-9P | GT 27 GT 25 | | |
| | | | | | | | | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | | |

*1 The link unit is a product manufactured by JTEKT CORPORATION. For details of the product, contact JTEKT CORPORATION.

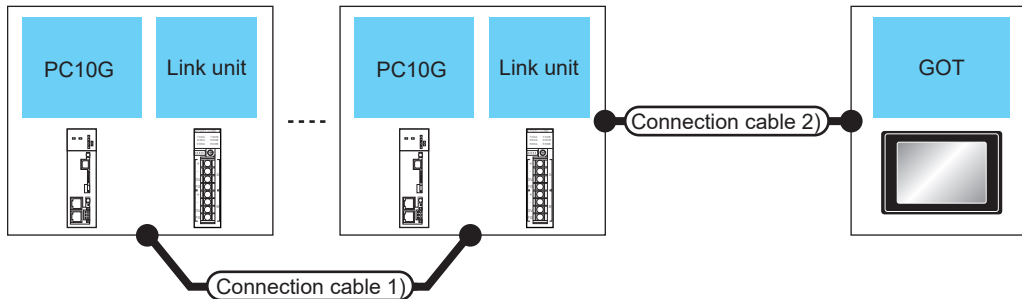
*2 The interface converter is a product manufactured by JTEKT CORPORATION.

For details of the product, contact JTEKT CORPORATION.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to PC10G

For the RS-422 connection



| PLC ^{*3} | | | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|-------------------|-------------------------|-------------------------|---------------------------------------|---------------------------------------|--|---------------|--------------------|------|---------------------------------|
| Model name | Link unit ^{*1} | Communication Type | Cable model Connection diagram number | Cable model Connection diagram number | Option device ^{*2} | | Model | | |
| PC10G | PC10G-CPU | PC/CMP2-LINK (THU-5139) | RS-422 | Page 396 RS-422 connection diagram 4) | GT09-C30R41201-6C(3m) GT09-C100R41201-6C(10m) GT09-C200R41201-6C(20m) GT09-C300R41201-6C(30m) or Page 397 RS-422 connection diagram 7) | 500m | - (Built into GOT) | | 32 PLCs for 1 GOT |
| | | | | | | | | | |
| PC10G | ML10 (TCU-6903) | RS-422 | RS-422 | Page 397 RS-422 connection diagram 9) | GT09-C30R41201-6C(3m) GT09-C100R41201-6C(10m) GT09-C200R41201-6C(20m) GT09-C300R41201-6C(30m) or Page 398 RS-422 connection diagram 10) | 500m | - (Built into GOT) | | 32 PLCs for 1 GOT |
| | | | | | | | | | |

*1 The link unit is a product manufactured by JTEKT Corporation.

For details of the product, contact JTEKT Corporation.

*2 GT25-W, GT2505-V does not support the option device.

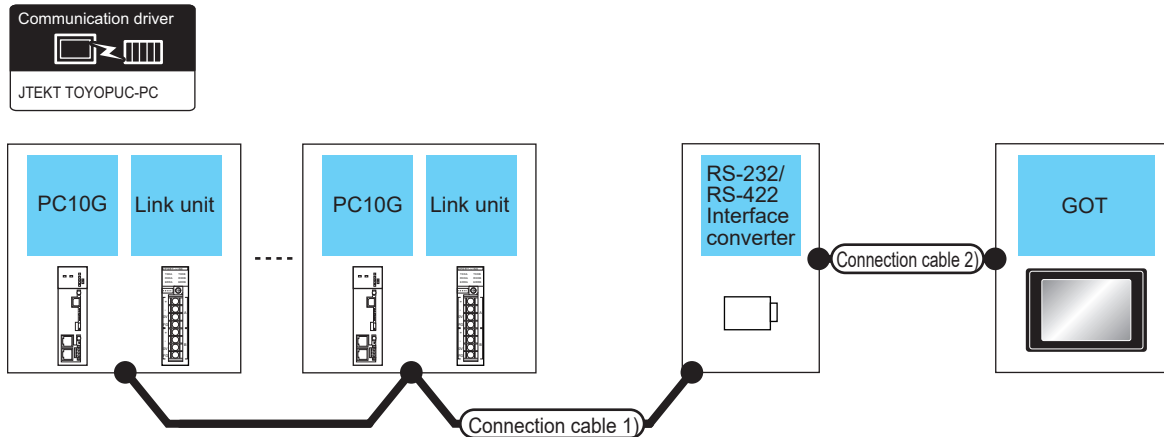
*3 When connecting multiple PLCs, set the same operation mode for all the PLCs.

In GT Designer3, set [Format] in [Detail Setting] according to the operation mode set for the PLCs.

For details, refer to the following.

Page 400 Communication detail settings

For the RS-232 connection (via an interface converter)



| PLC | | Connection cable 1) | | RS-232/RS-422 interface converter* ² | | Connection cable 2) | | GOT | | Number of connectable equipment | | | | |
|-------------|---|--|--|---|--------------------|--|--|-----------------------------|---|---|-------|-------|-------|-------|
| Model name | Link unit* ¹ | Cable model Connection diagram number | Max. distance | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device* ³ | Model | | | | | |
| PC10G | PC10G-CPU | - | (User preparing) Page 395 RS-422 connection diagram 1) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 |
| | | | | | | | | | GT 27 | GT 25 | | | | |
| | | | | | | | | | GT 23 | GS 25 | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | |
| PC10G | PC/CMP-LINK (THU-2755) 2PORT-LINK (THU-2927) | (User preparing) Page 395 RS-422 connection diagram 2) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | |
| | | | | | | | | GT 27 | GT 25 | | | | | |
| | | | | | | | | GT 23 | GS 25 | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | |
| PC10G | ML10 (TCU-6903) | (User preparing) Page 397 RS-422 connection diagram 8) | 500m | TXU-2051 | RS-232 | GT09-C30R21201-25P(3m) or (User preparing) Page 393 RS-232 connection diagram 1) | 15m | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | |
| | | | | | | | | GT 27 | GT 25 | | | | | |
| | | | | | | | | GT 23 | GS 25 | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | | |

*1 The link unit is a product manufactured by JTEKT Corporation.

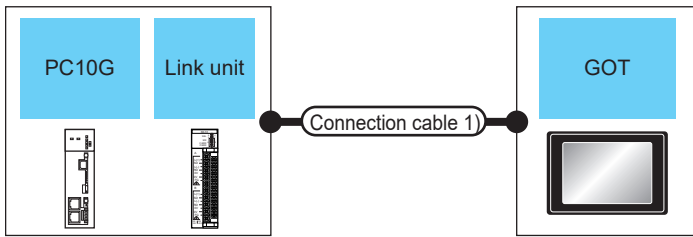
For details of the product, contact JTEKT Corporation.

*2 The interface converter is a product manufactured by JTEKT Corporation.

For details of the product, contact JTEKT Corporation.

*3 GT25-W, GT2505-V does not support the option device.

For the RS-232 connection (via link unit)



| PLC | | | | Connection cable 1) | Max. distance | GOT | | Number of connectable equipment | | | | |
|------------|-----------|-------------------------|--------------------|---|---------------|-----------------------------|---|---------------------------------|-------|-------|-------|-----------------|
| Model name | | Link unit ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*2} | Model | | | | | |
| PC10G | PC10G-CPU | ML10 (TCU-6903) | RS-232 | <small>(User preparing)</small> Page 393 RS-232 connection diagram 2) | 15m | - (Built into GOT) | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> <tr> <td>GT 23</td> <td>GS 25</td> </tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 1 PLC for 1 GOT |
| GT 27 | GT 25 | | | | | | | | | | | |
| GT 23 | GS 25 | | | | | | | | | | | |
| | | | | | | GT15-RS2-9P | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> </table> | GT 27 | GT 25 | | | |
| GT 27 | GT 25 | | | | | | | | | | | |

*1 The link unit is a product manufactured by JTEKT Corporation.
For details of the product, contact JTEKT Corporation.

*2 GT25-W, GT2505-V does not support the option device.

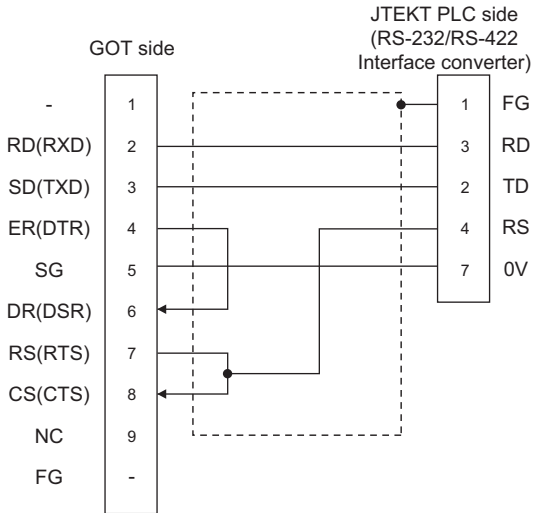
8.3 Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

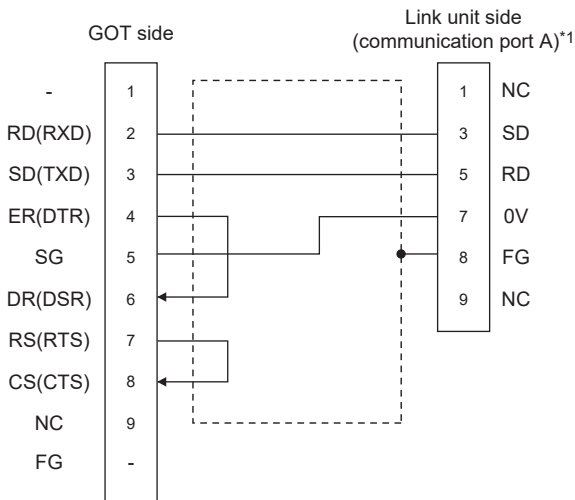
RS-232 cable

Connection diagram

■RS-232 connection diagram 1)



■RS-232 connection diagram 2)



*1 When using communication port B of the ML10, use the following terminal numbers.

| Signal name | Terminal No. |
|-------------|--------------|
| SD | 13 |
| RD | 15 |
| 0V | 17 |
| FG | 18 |


Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 15m or less.

■GOT side connector

For the GOT side connector, refer to the following.

 Page 58 GOT connector specifications

■JTEKT PLC side connector

Use the connector compatible with the JTEKT PLC side module.

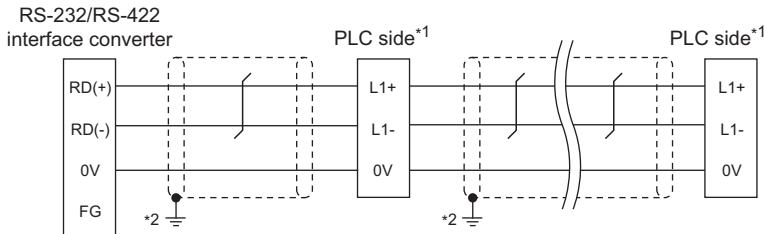
For details, refer to the JTEKT PLC user's manual.

RS-422 cable

Connection diagram

■RS-422 connection diagram 1)

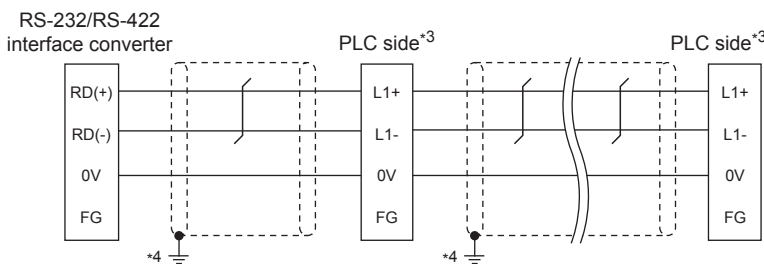
(For PC3JG-P/PC3JG/PC3JD/PC3JD-C)



*1 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*2 Connect FG grounding to the appropriate part of a cable shield line.

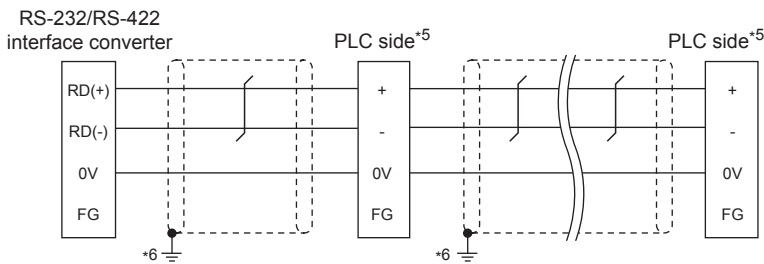
(For PC3J/PC3JL)



*3 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*4 Connect FG grounding to the appropriate part of a cable shield line.

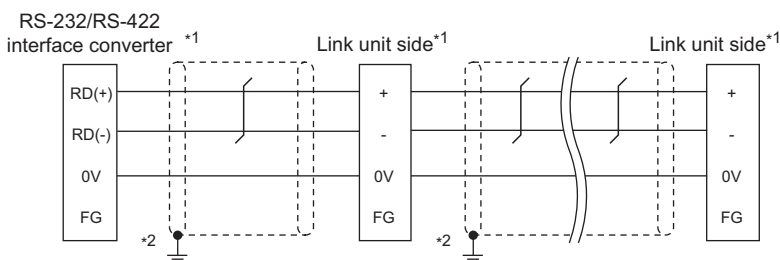
(For PC2JC/PC2J16P, PC2J16PR)



*5 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*6 Connect FG grounding to the appropriate part of a cable shield line.

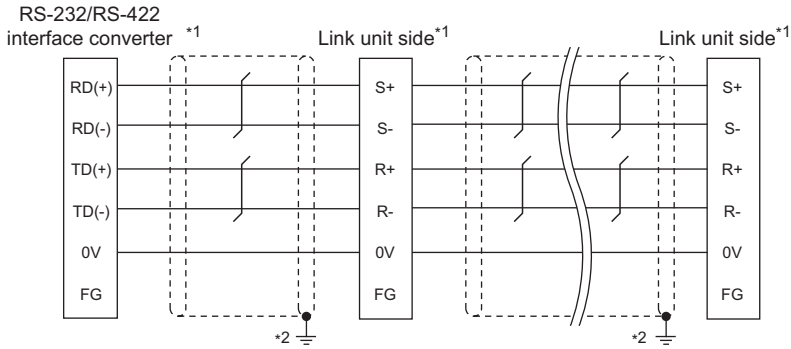
■RS-422 connection diagram 2)



*1 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*2 Connect FG grounding to the appropriate part of a cable shield line.

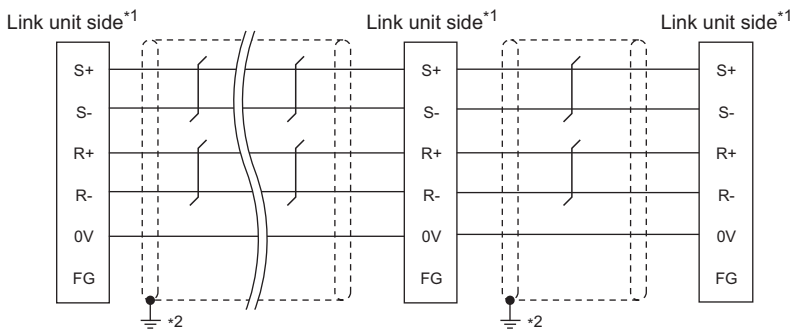
■RS-422 connection diagram 3)



*1 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*2 Connect FG grounding to the appropriate part of a cable shield line.

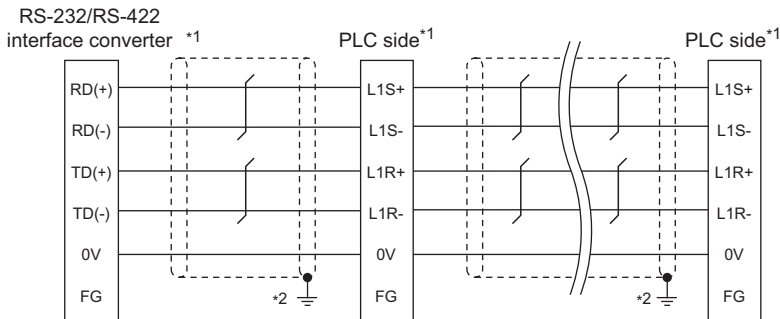
■RS-422 connection diagram 4)



*1 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*2 Connect FG grounding to the appropriate part of a cable shield line.

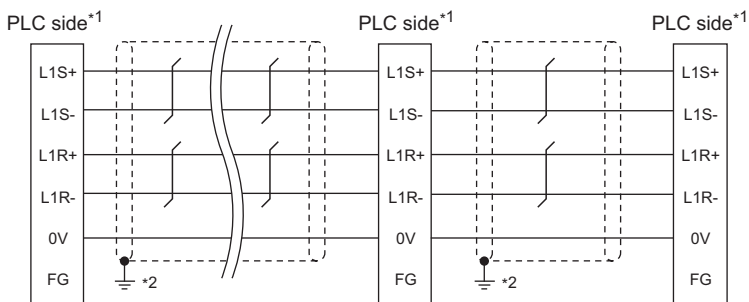
■RS-422 connection diagram 5)



*1 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*2 Connect FG grounding to the appropriate part of a cable shield line.

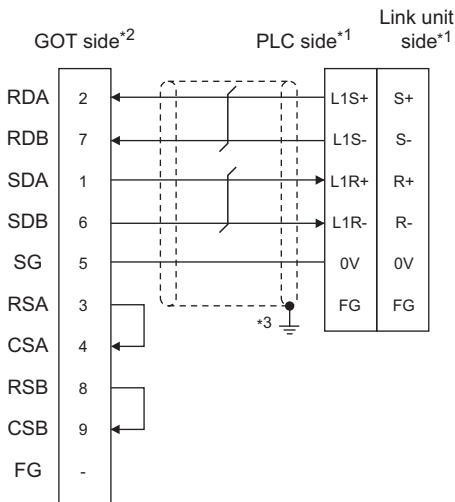
■RS-422 connection diagram 6)



*1 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*2 Connect FG grounding to the appropriate part of a cable shield line.

■RS-422 connection diagram 7)



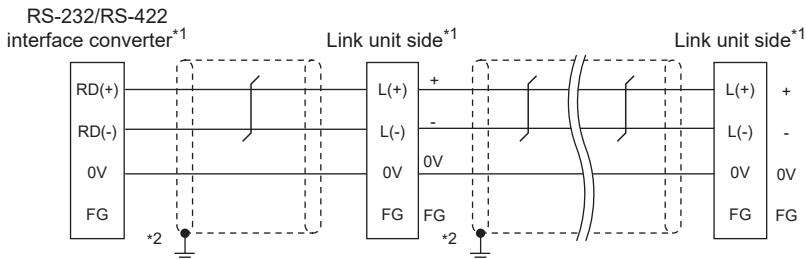
*1 Terminating resistors should not be provided for a PLC and an RS-232/RS-422 interface converter which will be terminals.

*2 Set the terminating resistor of GOT side which will be a terminal.

Page 398 Connecting terminating resistors

*3 Connect FG grounding to the appropriate part of a cable shield line.

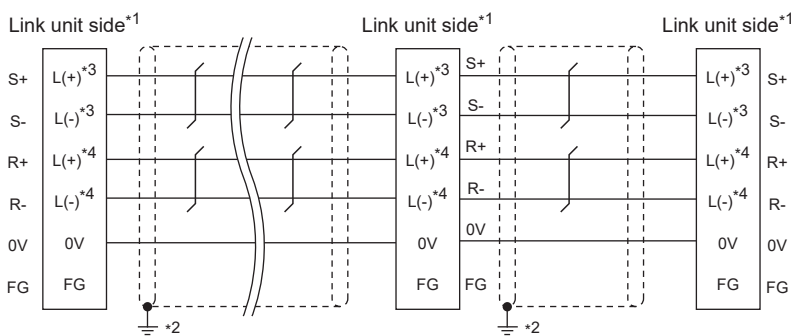
■RS-422 connection diagram 8)



*1 Do not provide terminating resistors for the link unit and RS-232/RS-422 interface converter which will be the terminals.

*2 Connect FG grounding to the appropriate part of a cable shield line.

■RS-422 connection diagram 9)



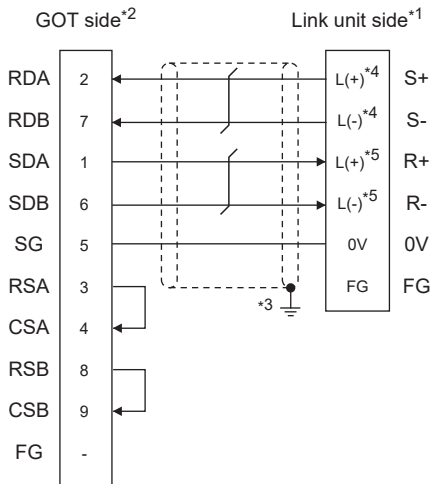
*1 Do not provide terminating resistors for the terminal link units.

*2 Connect FG grounding to the appropriate part of a cable shield line.

*3 Connect the cable to the terminal of communication port A.

*4 Connect the cable to the terminal of communication port B.

■RS-422 connection diagram 10)



- *1 Do not provide a terminating resistor for the terminal link unit.
- *2 Set the terminating resistor settings on the terminal GOT.
☞ Page 398 Connecting terminating resistors
- *3 Connect FG grounding to the appropriate part of a cable shield line.
- *4 Connect the cable to the terminal of communication port A.
- *5 Connect the cable to the terminal of communication port B.

Precautions when preparing a cable

■Cable length

The maximum length of the RS-422 cable must be 500m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■JTEKT PLC side connector

Use the connector compatible with the JTEKT PLC side module.

For details, refer to the JTEKT PLC user's manual.

Connecting terminating resistors

■GOT side

- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Disable".

- For GT2505-V

Set the terminating resistor selector to "330Ω".

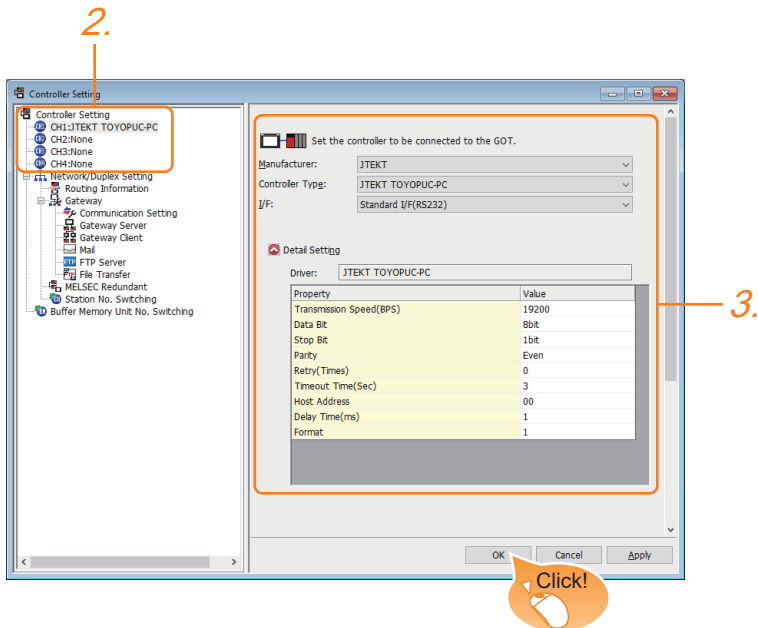
For the procedure to set the terminating resistor, refer to the following.

☞ Page 62 Terminating resistors of GOT

8.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
 2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
 3. Set the following items.
 - [Manufacturer]: [JTEKT]
 - [Controller Type]: [JTEKT TOYOPUC-PC]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.
- ☞ Page 400 Communication detail settings
4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].
For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 19200 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Host Address | 00 |
| Delay Time(ms) | 1 |
| Format | 1 |

| Item | Description | Range |
|----------------------|---|--|
| Transmission Speed*1 | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 19200bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bit/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bit) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 3 to 30sec |
| Host Address | Specify the host address (station No. of the GOT to which the PLC is connected) in the connected network. (Default: 00) | 00 to 37 (Octal) |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0) | 0 to 300ms |
| Format | Select the communication format. (Default: 1) format 1: PC3J extended function in compliant format 2: PC3J extended function compliant | 1/2 |

*1 When using an RS-232/RS-422 interface converter, set 19200 bps or less for [Transmission Speed(BPS)].

Point

• Format setting

The compatible format of PLC differs depending on model.

| Model name | Compatible format |
|--|----------------------|
| PC2J, PC2JS, PC2JR, PC2JC, PC2J16P, PC2J16PR | Format 1 only |
| PC3JG, PC3JG-P, PC3JD, PC3JD-C, PC3J, PC3JL, PC10G | Format 1 or Format 2 |

For details of PC3J extended function, refer to the following manual.

JTEKT PLC user's manual

• Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

GOT2000 Series User's Manual (Utility)

• Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

8.5 PLC Side Setting



JTEKT PLC

For details of JTEKT PLCs, refer to the following manuals.

JTEKT PLC user's manual

| Model name | | Refer to |
|-----------------------------------|---|---|
| PLC CPU | PC3JG, PC3JG-P, PC3JD, PC3JD-C, PC2J, PC2JS, PC2JR, PC10G-CPU | Page 401 Connecting to PC3JG, PC3JD, PC2J (PC2J, PC2JS, or PC2JR), or PC10G |
| | PC3J, PC3JL | Page 402 Connecting to PC3J |
| | PC2JC | Page 403 Connecting to PC2JC |
| | PC2J16P, PC2J16PR | Page 404 Connecting to PC2J16P or PC2J16PR |
| RS-232/RS-422 interface converter | RS-232/RS-422 interface converter | Page 405 RS-232/RS-422 interface converter setting |
| Link unit | PC/CMP-LINK | Page 406 PC/CMP-LINK, 2PORT-LINK, or PC/CMP2-LINK settings |
| | 2PORT-LINK | |
| | PC/CMP2-LINK | |
| | ML10 | Page 408 ML10 settings |

Connecting to PC3JG, PC3JD, PC2J (PC2J, PC2JS, or PC2JR), or PC10G

Communication settings

The following shows the communication settings to connect the GOT and a PLC through an RS-232/RS-422 interface converter.

Configure the communication settings using the PLC peripheral device (PCwin).

| Item | Set value |
|----------------------------------|---|
| Transmission speed* ¹ | Connection via interface converter* ² 9600bps, 19200bps |
| Data bit* ¹ | 8bits, 7bits |
| Parity bit | Even (fixed) |
| Stop bit* ¹ | 1bit, 2bits |
| Station No.* ³ | 0 to 37 (Octal) |
| 2-wire/4-wire type* ⁴ | 2-wire type or 4-wire type |

*1 Adjust the settings with GOT settings.

*2 When using an RS-232/RS-422 interface converter, set 19200 bps or less for the transmission speed. The value must be the same as the value set for the RS-232/RS-422 interface converter.

*3 Avoid duplication of the station No. with any of the other units.

*4 Make the settings referring to the following connection diagram.

Page 395 RS-422 cable

Connecting to PC3J

Communication settings

The following shows the communication settings to connect the GOT and a PLC directly or through an RS-232/RS-422 interface converter.

Configure the communication settings using the PLC peripheral device (PCwin).


| Item | | Set value |
|----------------------|--------------------------------------|-----------------------------|
| Transmission speed*1 | Direct connection | 9600bps, 19200bps, 38400bps |
| | Connection via interface converter*2 | 9600bps, 19200bps, |
| Data bit*1 | | 8bits, 7bits |
| Parity bit | | Even (fixed) |
| Stop bit*1 | | 1bit, 2bits |
| Station No.*3 | | 0 to 37 (Octal) |
| 2-wire/4-wire type*4 | | 2-wire type or 4-wire type |

*1 Adjust the settings with GOT settings.

*2 When using an RS-232/RS-422 interface converter, set 19200 bps or less for the transmission speed. The value must be the same as the value set for the RS-232/RS-422 interface converter.

*3 Avoid duplication of the station No. with any of the other units.

*4 Make the settings referring to the following connection diagram.

 Page 395 RS-422 cable

Connecting to PC2JC

Communication settings

Make the communication settings using each setting switch.

For the detail settings, refer to the following manual.

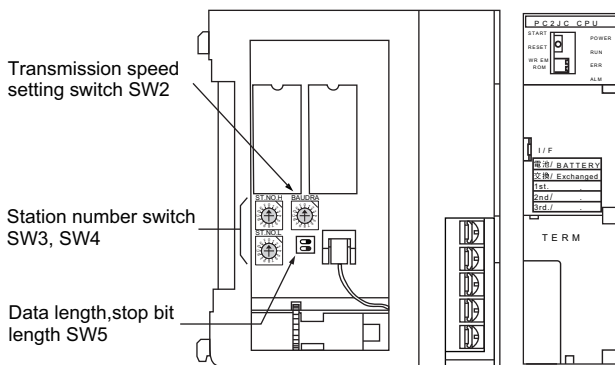
JTEKT PLC user's manual

| Item | Set value |
|----------------------|-------------------|
| Transmission speed*1 | 9600bps, 19200bps |
| Data bit*1 | 8bits, 7bits |
| Stop bit*1 | 1bit, 2bits |
| Station No.*1 | 0 to 37 (Octal) |

*1 Adjust the settings with GOT settings.

Settings by switch

Make the communication settings using each setting switch.



Setting of the station No.

Set the station No. between 00 and 37 (Octal).

| Switch name | Station number setting |
|-------------|------------------------|
| SW3 | Upper digit |
| SW4 | Lower digit |

Transmission speed settings

| Switch name | Switch position | Transmission speed (bps) |
|-------------|-----------------|--------------------------|
| SW2 | 1 | 19200 |
| | 2 | 9600 |

Settings of data length and stop bit length

| Switch name | Setting item | Set value | Switch No. | |
|-------------|-----------------|-----------|------------|-----|
| | | | 2 | 1 |
| SW5 | Data bit | 8bits | OFF | |
| | | 7bits | ON | |
| | Stop bit length | 2bits | | OFF |
| | | 1bit | | ON |

Connecting to PC2J16P or PC2J16PR

Communication settings

Make the communication settings using each setting switch.

For the detail settings, refer to the following manual.

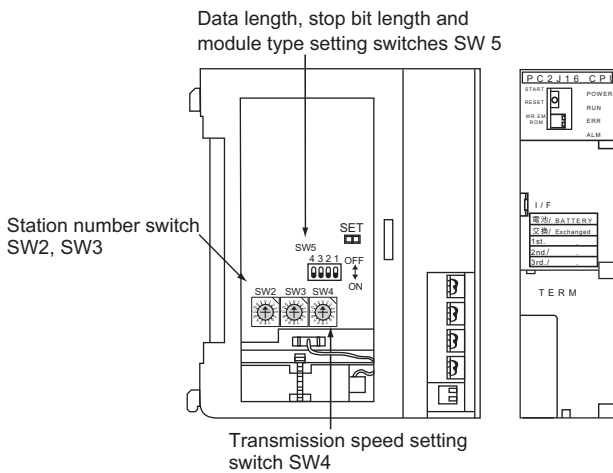
JTEKT PLC user's manual

| Item | Set value |
|--------------------------|-------------------|
| Transmission speed*1 | 9600bps, 19200bps |
| Data bit*1 | 8bits, 7bits |
| Stop bit*1 | 1bit, 2bits |
| Station No.*1 | 0 to 37 (Octal) |
| Selection of module type | Computer link |

*1 Adjust the settings with GOT settings.

Settings by switch

Make the communication settings using each setting switch.



Setting of the station No.

Set the station No. between 00 and 37 (Octal).

| Switch name | Station number setting |
|-------------|------------------------|
| SW2 | Upper digit |
| SW3 | Lower digit |

Transmission speed settings

| Switch name | Switch position | Transmission speed (bps) |
|-------------|-----------------|--------------------------|
| SW4 | 1 | 19200 |
| | 2 | 9600 |

Settings of data length, stop bit length and module type

| Switch name | Setting item | Set value | Switch No. | | |
|-------------|-----------------|-----------|------------|-----|---|
| | | | 4 | 3 | 2 |
| SW5 | Data bit | 8bits | OFF | | |
| | | 7bits | ON | | |
| | Stop bit length | 2bits | | OFF | |
| | | 1bit | | ON | |
| Module type | Computer link | | | OFF | |

RS-232/RS-422 interface converter setting


Communication settings

Make the communication settings by the setting switch of the RS-232/RS-422 interface converter.

| Item | Set value |
|----------------------|----------------------------|
| Transmission speed*1 | 9600bps, 19200bps |
| 2-wire/4-wire type*2 | 2-wire type or 4-wire type |
| Echo back | OFF |

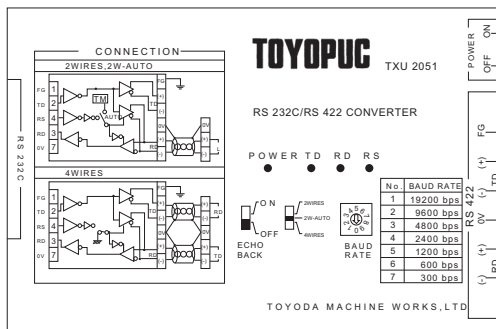
*1 Adjust the settings with GOT settings.

*2 Set referring to the RS-422 connection diagram. For details, refer to the following.

 Page 395 RS-422 cable

Settings by switch

Make the communication settings by each setting switch of the RS-232/RS-422 interface converter.



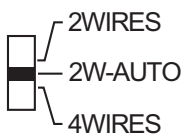
Transmission speed settings



BAUD
RATE

| Transmission speed (bps) | Switch position |
|--------------------------|-----------------|
| 9600 | 2 |
| 19200 | 1 |

Mode setting switch



| Mode | Switch position |
|-------------|-----------------|
| 2-wire type | 2W-AUTO |
| 4-wire type | 4 WIRES |

Echoback setting switch



ECHO
BACK

| Setting | Switch position |
|---------|-----------------|
| OFF | OFF |

PC/CMP-LINK, 2PORT-LINK, or PC/CMP2-LINK settings

Communication settings

Make the communication settings using each setting switch of the link unit.

For the detail settings, refer to the following manual.

📖 User's Manual of the JTEKT link unit

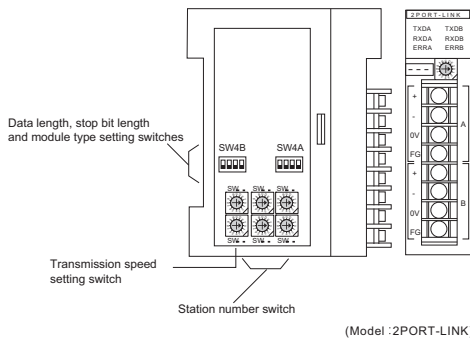
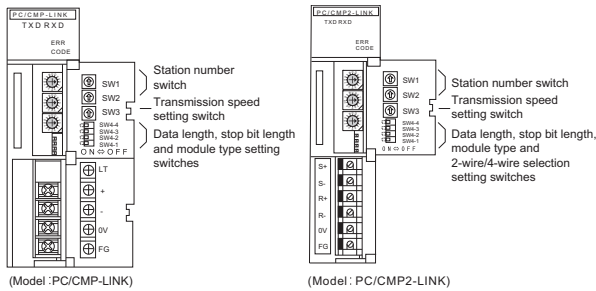
| Item | Set value |
|---|----------------------------|
| Transmission speed*1 | 9600bps, 19200bps |
| Data bit*1 | 8bits, 7bits |
| Stop bit*1 | 1bit, 2bits |
| Station No.*1 | 0 to 37 (Octal) |
| Selection of module type | Computer link |
| Selection of 2-wire type or 4-wire type*2 | 2-wire type or 4-wire type |

*1 Adjust the settings with GOT settings.

*2 Set referring to the RS-422 connection diagram. For details, refer to the following.

📄 Page 395 RS-422 cable

Settings by switch



■Setting of the station No.

Set the station No. between 00 and 37 (Octal).

| Switch name | Station number setting |
|-------------|------------------------|
| SW1 | Upper digit |
| SW2 | Lower digit |

■Transmission speed settings

The settings must be consistent with the GOT settings.

| Switch name | Switch position | Transmission speed (bps) |
|-------------|-----------------|--------------------------|
| SW3 | 2 | 9600 |
| | 1 | 19200 |

■Data length, stop bit length, module type and 2-wire/4-wire type communication selection setting

| Switch name | Setting item | Set value | Switch No. | | | |
|-------------|---|---------------------------|------------|-----|-----|-----|
| | | | 4 | 3 | 2 | 1 |
| SW4 | Data bit | 8bits | OFF | | | |
| | | 7bits | ON | | | |
| | Stop bit length | 2bits | | OFF | | |
| | | 1bit | | ON | | |
| | Module type*1 | PC link | | | OFF | |
| | | Computer link | | | ON | |
| | 2-wire type/4-wire type communication selection*2 | 2-wire type communication | | | | OFF |
| | | 4-wire type communication | | | | ON |

*1 Set to ON (computer link) when connecting the GOT.

*2 The setting is available only for the link unit (Model: PC/CMP2-LINK).

ML10 settings

Communication settings

Make the communication settings using each setting switch of the link unit.

For the detail settings, refer to the following manual.

📖 User's Manual of the JTEKT link unit

| Item | Set value |
|---|--|
| Transmission speed ^{*1*2} | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data bit ^{*1} | 8bits, 7bits |
| Stop bit ^{*1} | 1bit, 2bits |
| Station No. ^{*1} | 0 to 37 (Octal) |
| Port function | Computer link |
| Selection of 2-wire type or 4-wire type ^{*3} | 2-wire type or 4-wire type |

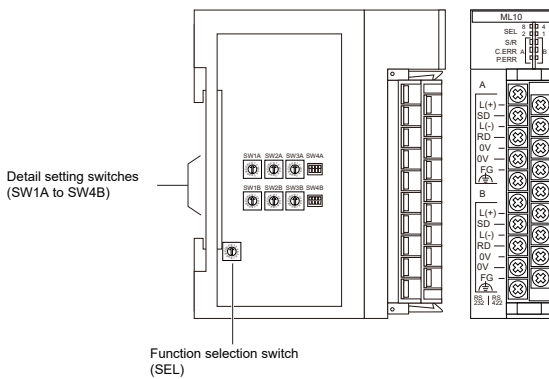
*1 Adjust the settings with GOT settings.

*2 When using an RS-232/RS-422 interface converter, set 19200 bps or less for the transmission speed. The value must be the same as the value set for the RS-232/RS-422 interface converter.

*3 Set referring to the RS-422 connection diagram. For details, refer to the following.

📄 Page 395 RS-422 cable

Settings by switch



■ Function selection switch (SEL)

Configure the communication function settings for communication port A and B.

| SEL | Function | | 2-wire type/ 4-wire type | Detail setting switch to be used |
|--------|---|--|-----------------------------|--|
| | Communication port A | Communication port B | | |
| 0 | PC link, computer link ^{*1} | - | 2-wire type | SW1A to SW4A |
| 1 | PC link, computer link (send) ^{*1} | PC link, computer link (receive) ^{*1} | 4-wire type | SW1A to SW4A |
| 8 to E | PC link, computer link ^{*1} | PC link, computer link ^{*1} | 2-wire type | <ul style="list-style-type: none"> Communication port A setting: SW1A to SW4A Communication port B setting: SW1A to SW4A |

*1 Set SW4A and SW4B to the computer link when connecting the GOT.

When setting the value of the SEL to 8 to E, also set the unused communication port to the computer link.

■Detail setting switches (SW1A to SW4B)

- Setting of the station No.

Set the station No. between 00 and 37 (Octal).

| Switch name | | Station number setting |
|-------------------------------------|----------------------|------------------------|
| Communication port A or 4-wire type | Communication port B | |
| SW1A | SW1B | Upper digit |
| SW2A | SW2B | Lower digit |

- Transmission speed settings

The settings must be consistent with the GOT settings.

| Switch name | | Switch position | Transmission speed (bps) ^{*1} |
|-------------------------------------|----------------------|-----------------|--|
| Communication port A or 4-wire type | Communication port B | | |
| SW3A | SW3B | 0 | 57600 |
| | | 1 | 19200 |
| | | 2 | 9600 |
| | | A | 38400 |
| | | B | 115200 |

*1 When using an RS-232/RS-422 interface converter, set 19200 bps or less for the transmission speed. The value must be the same as the value set for the RS-232/RS-422 interface converter.

- Data length, stop bit length, port function, and 2-wire type/4-wire type settings

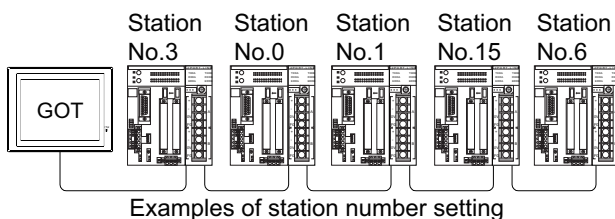
| Switch name | | Setting item | Set value | Switch No. | | | |
|-------------------------------------|----------------------|-----------------------------|---------------|------------|-----|-----|-----|
| Communication port A or 4-wire type | Communication port B | | | 4 | 3 | 2 | 1 |
| SW4A | SW4B | Data length | 8bits | OFF | | | |
| | | | 7bits | ON | | | |
| | | Stop bit length | 2bits | | OFF | | |
| | | | 1bit | | ON | | |
| | | Port function ^{*1} | PC link | | | OFF | |
| | | | Computer link | | | ON | |
| | | 2-wire type/4-wire type | 2-wire type | | | | OFF |
| 4-wire type | | | | | ON | | |

*1 Set to ON (computer link) when connecting the GOT.

Station number setting

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.



Direct specification

Specify the station No. of the PLC to be changed when setting device.

| Specification range |
|---------------------|
| 00 to 37 (Octal) |

8.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 660 JTEKT equipment ([JTEKT TOYOPUC-PC])

8.7 Precautions

Station No. settings of the PLC side

In the system configuration, the PLC with the station number set with the host address must be included. For details of host address setting, refer to the following.

☞ Page 399 Setting communication interface (Communication settings)

GOT clock control

The GOT clock function is available only for the PLC with the station number set with the host address.

For details of host address setting, refer to the following.

☞ Page 399 Setting communication interface (Communication settings)

System configuration

If the system is configured by mixing the PC3J extended function compliant PLC with the PC3J extended function noncompliant PLC, normal communication may not be performed. Unify the PLCs into PC3J extended function compliant or PC3J extended function noncompliant to configure the system.

System alarm









The system alarm can be displayed only for the PLC set with a host address. When connected to the PC3J extended function compliant PLC, only the system alarm of program No. 1 can be displayed.

9 SHARP PLC

- Page 411 Connectable Model List
- Page 412 System Configuration
- Page 416 Connection Diagram
- Page 419 GOT Side Settings
- Page 421 PLC Side Setting
- Page 428 Settable Device Range

9.1 Connectable Model List

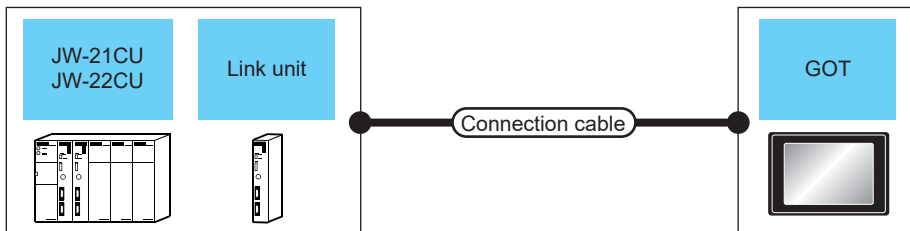
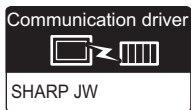
The following table shows the connectable models.

| Model name | Clock | Communication Type | Connectable GOT | Refer to |
|------------|-------|--------------------|--|---|
| JW-21CU | × | RS-422 |  |  Page 412 Connecting to JW-21CU or JW-22CU |
| JW-22CU | ○ | RS-232 RS-422 | | |
| JW-31CUH | × | RS-422 |  |  Page 413 Connecting to JW-31CUH, JW-32CUH or JW-33CUH |
| JW-32CUH | ○ | RS-232 | | |
| JW-33CUH | ○ | RS-422 | | |
| JW-50CUH | × | RS-422 |  |  Page 414 Connecting to JW-50CUH, JW-70CUH, JW-100CUH, or JW-100CU |
| JW-70CUH | ○*1 | RS-232 | | |
| JW-100CUH | ○*1 | RS-422 | | |
| JW-100CU | ○ | | | |
| Z-512J | ○ | RS-232 RS-422 |  |  Page 415 Connecting to Z-512J |

*1 When the link unit (ZW-10CM) is used in JW-70CUH/100CUH, the clock function is not available.

9.2 System Configuration

Connecting to JW-21CU or JW-22CU



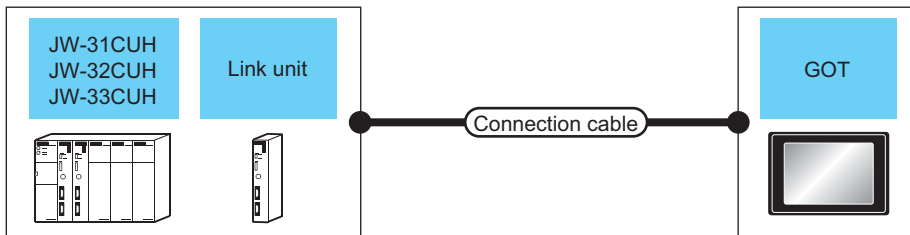
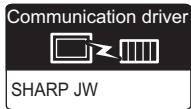
| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|--------------------|-------------|--------------------|---|---|--------------------|-------|---------------------------------|
| Model name | Link unit*1 | Communication Type | Cable model Connection diagram number | | Option device*2 | Model | |
| JW-22CU | - | RS-232 | GT09-C30R20601-15P(3m) or Page 416 RS-232 connection diagram 1) | Differs according to PLC side specifications. | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | GT09-C30R40601-15P(3m) GT09-C100R40601-15P(10m) GT09-C200R40601-15P(20m) GT09-C300R40601-15P(30m) or Page 417 RS-422 connection diagram 1) | Differs according to PLC side specifications. | - (Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |
| JW-21CU JW-22CU | JW-21CM | RS-422 | GT09-C30R40603-6T(3m) GT09-C100R40603-6T(10m) GT09-C200R40603-6T(20m) GT09-C300R40603-6T(30m) or Page 417 RS-422 connection diagram 3) | Differs according to PLC side specifications. | - (Built into GOT) | | 1 GOT for 1 link unit*3 |
| | | | | | GT15-RS4-9S | | |

*1 The link unit is a product manufactured by SHARP Corporation.
For details of this product, contact SHARP Corporation.

*2 GT25-W, GT2505-V does not support the option device.

*3 Up to two GOTs in the system configuration have been validated by Mitsubishi Electric Corporation.

Connecting to JW-31CUH, JW-32CUH or JW-33CUH



| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|----------------------------------|-------------------------|--------------------|---|---|-----------------------------|-------|-------------------------------------|
| Model name | Link unit ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*2} | Model | |
| JW-32CUH JW-33CUH | - | RS-232 | GT09-C30R20602-15P(3m) or Page 416 RS-232 connection diagram 2) | Differs according to PLC side specifications. | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | RS-422 | GT09-C30R40602-15P(3m) GT09-C100R40602-15P(10m) GT09-C200R40602-15P(20m) GT09-C300R40602-15P(30m) or Page 417 RS-422 connection diagram 2) | | - (Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |
| JW-31CUH JW-32CUH JW-33CUH | JW-21CM | RS-422 | GT09-C30R40603-6T(3m) GT09-C100R40603-6T(10m) GT09-C200R40603-6T(20m) GT09-C300R40603-6T(30m) or Page 417 RS-422 connection diagram 3) | Differs according to PLC side specifications. | - (Built into GOT) | | 1 GOT for 1 link unit ^{*3} |
| | | | | | GT15-RS4-9S | | |

*1 Use the link unit supporting JW-31CUH, JW-32CUH or JW-33CUH.

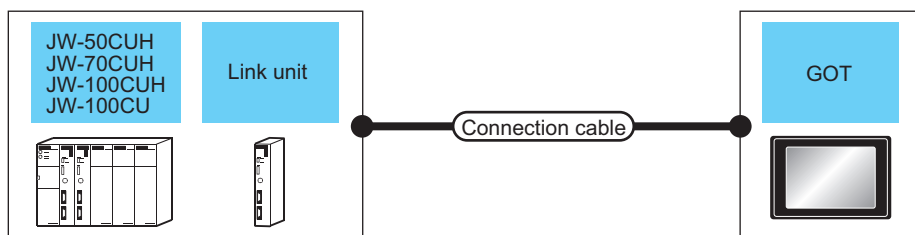
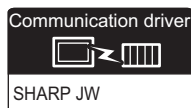
The link unit is a product manufactured by SHARP Corporation.

For details of this product, contact SHARP Corporation.

*2 GT25-W, GT2505-V does not support the option device.

*3 Up to two GOTs in the system configuration have been validated by Mitsubishi Electric Corporation.

Connecting to JW-50CUH, JW-70CUH, JW-100CUH, or JW-100CU



| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|---|--------------------|--------------------|---|---|--------------------|-------|---------------------------------|
| Model name | Link unit*1 | Communication Type | Cable model Connection diagram number | | Option device*2 | Model | |
| JW-70CUH JW-100CUH JW-100CU | - | RS-232 | GT09-C30R20601-15P(3m) or Page 416 RS-232 connection diagram 1) | Differs according to PLC side specifications. | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | RS-422 | GT09-C30R40601-15P(3m) GT09-C100R40601-15P(10m) GT09-C200R40601-15P(20m) GT09-C300R40601-15P(30m) or Page 417 RS-422 connection diagram 1) | | - (Built into GOT) | | |
| | | | | | GT15-RS4-9S | | |
| JW-50CUH JW-70CUH JW-100CUH JW-100CU | JW-10CM ZW-10CM | RS-422 | GT09-C30R40603-6T(3m) GT09-C100R40603-6T(10m) GT09-C200R40603-6T(20m) GT09-C300R40603-6T(30m) or Page 417 RS-422 connection diagram 3) | Differs according to PLC side specifications. | - (Built into GOT) | | 1 GOT for 1 link unit*3 |
| | | | | | GT15-RS4-9S | | |

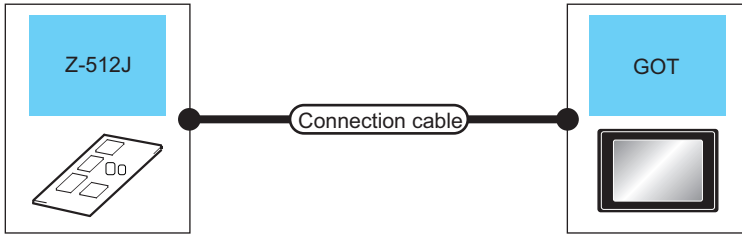
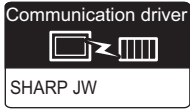
*1 The link unit is a product manufactured by SHARP Corporation.

For details of this product, contact SHARP Corporation.

*2 GT25-W, GT2505-V does not support the option device.

*3 Up to two GOTs in the system configuration have been validated by Mitsubishi Electric Corporation.

Connecting to Z-512J



| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|---|---|-----------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device ^{*1} | Model | |
| Z-512J | RS-232 | GT09-C30R20602-15P(3m) or Page 416 RS-232 connection diagram 2) | Differs according to PLC side specifications. | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P | | |
| | RS-422 | GT09-C30R40602-15P(3m) GT09-C100R40602-15P(10m) GT09-C200R40602-15P(20m) GT09-C300R40602-15P(30m) or Page 417 RS-422 connection diagram 2) | Differs according to PLC side specifications. | - (Built into GOT) | | |
| | | | | GT15-RS4-9S | | |

*1 GT25-W, GT2505-V does not support the option device.

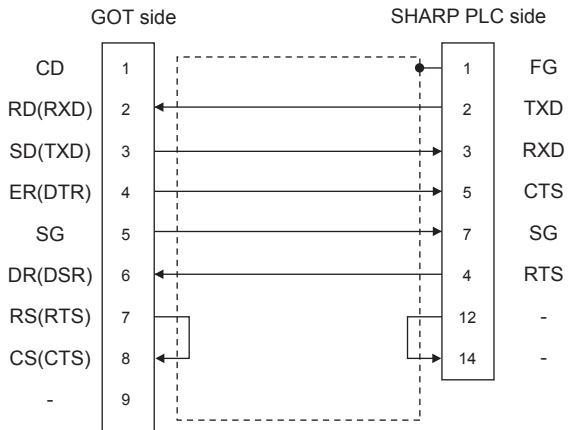
9.3 Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

RS-232 cable

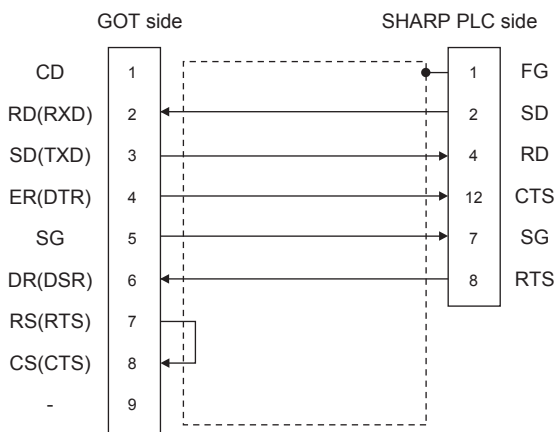
Connection diagram

■RS-232 connection diagram 1)



*1 GT27: CD, GT23: NC

■RS-232 connection diagram 2)



*1 GT27: CD, GT23: NC

Precautions when preparing a cable

■Cable length

The maximum length of the RS-232 cable differs according to the specifications of the SHARP PLC.

For details, refer to the following manual.

📖 SHARP PLC user's Manual

■GOT side connector

For the GOT side connector, refer to the following.

📖 Page 58 GOT connector specifications

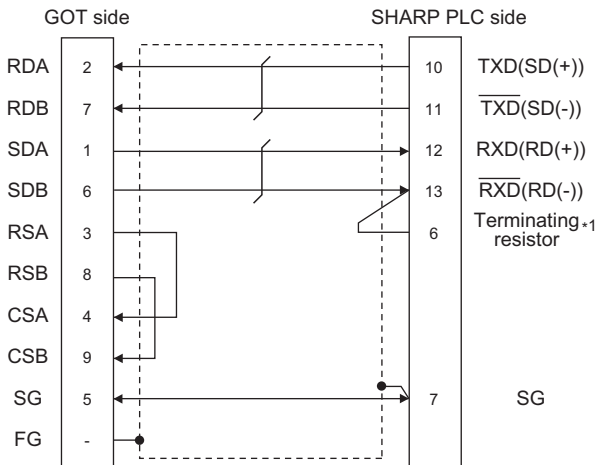
■SHARP PLC side connector

Use the connector compatible with the SHARP PLC side module.

For details, refer to the SHARP PLC user's manual.

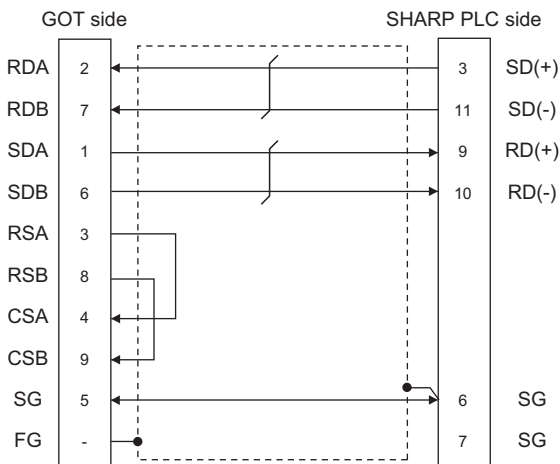
Connection diagram

■RS-422 connection diagram 1)

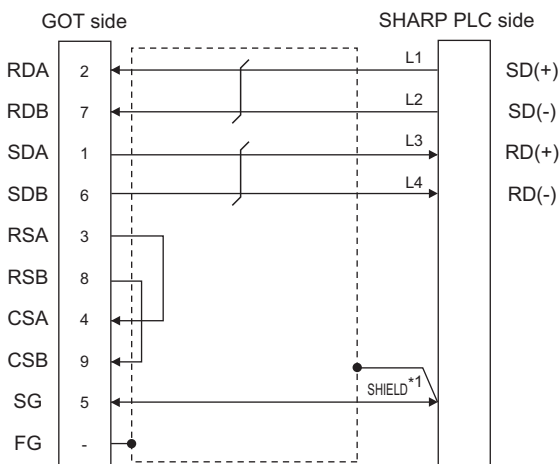


*1 Connect the terminating resistor at pin 6 with pin 13 (RXD) only at the terminal station.
(Valid for JW-70CUH and JW-100CUH. The terminating resistor does not exist in JW-22CU and JW-100CU.)

■RS-422 connection diagram 2)



■RS-422 connection diagram 3)



*1 Two SHIELD terminals are provided for JW-10CM and ZW-10CM. Connect to either SHIELD terminal.

Precautions when preparing a cable

■Cable length

The maximum length of the RS-422 cable differs according to the specifications of the SHARP PLC.

For details, refer to the following manual.

 SHARP PLC user's Manual

■GOT side connector

For the GOT side connector, refer to the following.

 Page 58 GOT connector specifications

■SHARP PLC side connector

Use the connector compatible with the SHARP PLC side module.

For details, refer to the SHARP PLC user's manual.

Connecting terminating resistors

■GOT side

- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Disable".

- For GT2505-V

Set the terminating resistor selector to "330Ω".

For the procedure to set the terminating resistor, refer to the following.

 Page 62 Terminating resistors of GOT

■SHARP PLC side

Connect the terminating resistor on the SHARP PLC side when connecting a GOT to a SHARP PLC.

The PLC CPUs and the modules on the PLC CPU side requiring a terminating resistor are shown below.

- JW-22CU

Turn "ON" the terminating resistor setting switch (SW1) on the back of JW-22CU to validate the terminating resistor.

- JW-70CUH and JW-100CUH

Connect the pin 6 (terminating resistor) of the communication port connection connector with the pin 13 (RXD) only at the terminal station to validate the terminating resistor.

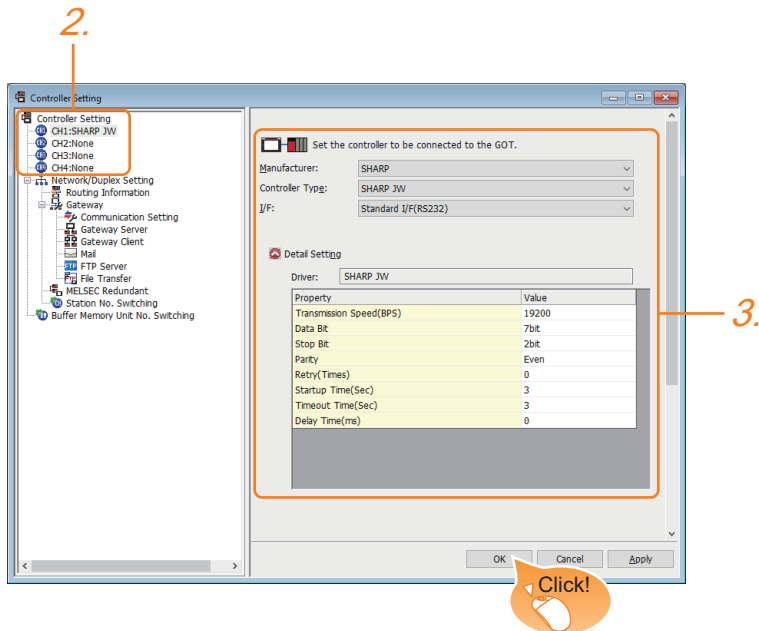
- JW-21CM, JW-10CM and ZW-10CM

Turn "ON" the terminator switch (SW7) on the front panel only at the terminal station to validate the terminating resistor.

9.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [SHARP]
 - [Controller Type]: [SHARP JW]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 420 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].
For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 19200 |
| Data Bit | 7 bit |
| Stop Bit | 2 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Startup Time(Sec) | 3 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|----------------------------|--|----------------------------|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 19200bps) | 4800bps, 9600bps, 19200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 7bits) | 7bit (fixed) |
| Stop Bit | Specify the stop bit length for communications. (Default: 2bit) | 2bit (fixed) |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | Even (fixed) |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Startup Time | Specify the time period from the GOT startup until GOT starts the communication with the PLC CPU. (Default: 3sec) | 3 to 30sec |
| Timeout Time ^{*1} | Set the time period for a communication to time out. (Default: 3sec) | 3 to 30sec |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300ms |


*1 When connecting to the communication port or link module, set [Delay Time] of the GOT side to 30 ms or more.

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

9.5 PLC Side Setting



SHARP PLC

For details of the SHARP PLC, refer to the following manual.

SHARP PLC user's Manual

| Model name | | Refer to |
|------------|-------------------------------|---|
| PLC CPU | JW-22CU | Page 422 Connecting to JW-22CU, JW-70CUH, JW-100CUH or JW-100CU |
| | JW-32CUH, JW-33CUH | Page 423 Connecting to JW-32CUH, JW-33CUH or Z-512J |
| | JW-70CUH, JW-100CUH, JW-100CU | Page 422 Connecting to JW-22CU, JW-70CUH, JW-100CUH or JW-100CU |
| | Z-512J | Page 423 Connecting to JW-32CUH, JW-33CUH or Z-512J |
| Link unit | JW-21CM | Page 424 Connecting to the link unit (JW-21CM) |
| | JW-10CM, ZW-10CM | Page 426 Connecting to the link unit (JW-10CM or ZW-10CM) |

Connecting to JW-22CU, JW-70CUH, JW-100CUH or JW-100CU

System memory setting

Set the system memory.

| System memory No. | Item | Set value | | | | | | | | | | | | | | | | |
|-------------------|---|--|-----|-----|----|----|----|----|----|----|---|---|-----|-----|-----|--|--|--|
| #236 | Transmission speed, parity and stop bit | <table border="1"> <tr> <td>D7</td> <td>D6</td> <td>D5</td> <td>D4</td> <td>D3</td> <td>D2</td> <td>to</td> <td>D0</td> </tr> <tr> <td>0</td> <td>0</td> <td>(3)</td> <td>(2)</td> <td>(1)</td> <td></td> <td></td> <td></td> </tr> </table> <p>(1) Transmission speed *1 *2 000: 19200bps 001: 9600bps 010: 4800bps</p> <p>(2) Parity 10 (fixed): Even</p> <p>(3) Stop bit 1 (fixed): 2 bits</p> | D7 | D6 | D5 | D4 | D3 | D2 | to | D0 | 0 | 0 | (3) | (2) | (1) | | | |
| D7 | D6 | D5 | D4 | D3 | D2 | to | D0 | | | | | | | | | | | |
| 0 | 0 | (3) | (2) | (1) | | | | | | | | | | | | | | |
| #237 | Station No. | 1: Station No. 1 (fixed) | | | | | | | | | | | | | | | | |

*1 Indicates only the transmission speeds that can be set on the GOT side.

*2 Set the same transmission speed of the GOT.

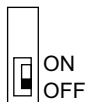
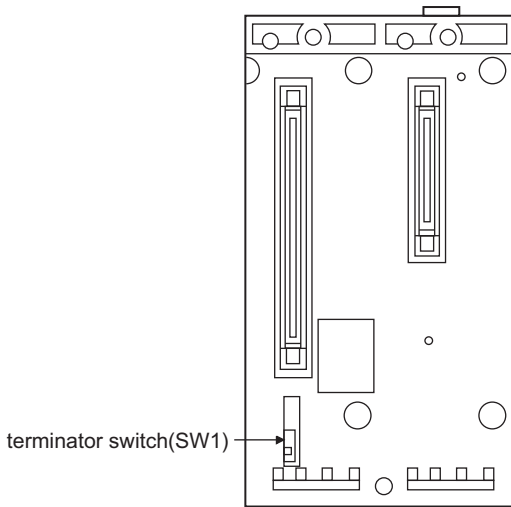
For the transmission speed setting on the GOT side, refer to the following.

☞ Page 419 Setting communication interface (Communication settings)

Terminating resistor setting switch (For JW-22CU only)

Set the terminating resistor setting switch.

■When using KV-L20R or KV-L20




| Settings | |
|-------------------------------|------------------------------------|
| For RS-232 communication | RS-422 communication |
| OFF (no terminating resistor) | ON (terminating resistor attached) |

Connecting to JW-32CUH, JW-33CUH or Z-512J

Settings for connecting to communication port 1 (PG/COMM1 port)

Set the system memory.


| System memory No. | Item | Set value | | | | | |
|-------------------|---|--|-----|-----|-----|-----|-----|
| #234 | Transmission speed, parity and stop bit | D7 D6 D5 D4 D3 D2 to D0 <table border="1"> <tr> <td>0</td> <td>0</td> <td>(3)</td> <td>(2)</td> <td>(1)</td> </tr> </table> (1) Transmission speed *1 *2 000: 19200bps 001: 9600bps 010: 4800bps (2) Parity 10 (fixed): Even (3) Stop bit 1 (fixed): 2 bits | 0 | 0 | (3) | (2) | (1) |
| 0 | 0 | (3) | (2) | (1) | | | |
| #235 | Station No. | 1: Station No. 1 (fixed) | | | | | |

- *1 Indicates only the transmission speeds that can be set on the GOT side.
- *2 Set the same transmission speed of the GOT.
 For the transmission speed setting on the GOT side, refer to the following.
 Page 419 Setting communication interface (Communication settings)

Settings for connecting to communication port 2 (PG/COMM2 port)

Set the system memory.

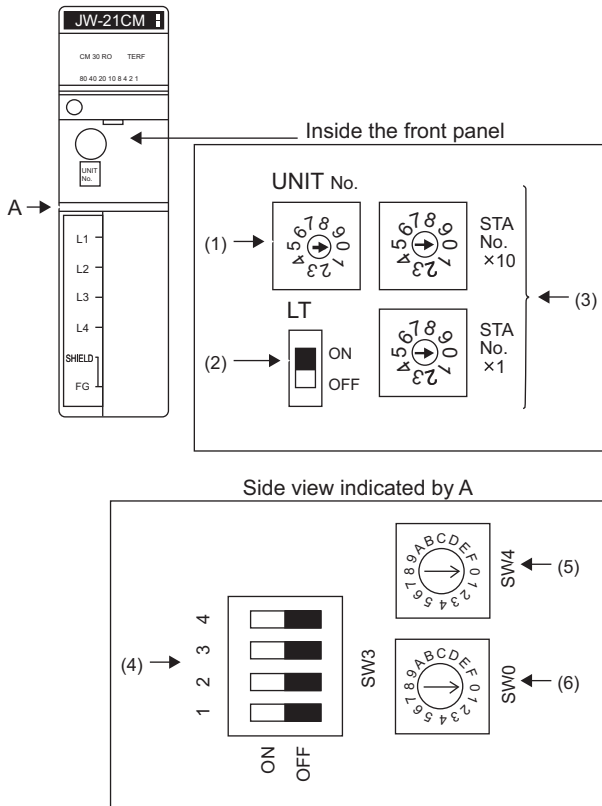
| System memory No. | Item | Set value | | | | | |
|-------------------|---|--|-----|-----|-----|-----|-----|
| #236 | Transmission speed, parity and stop bit | D7 D6 D5 D4 D3 D2 to D0 <table border="1"> <tr> <td>0</td> <td>0</td> <td>(3)</td> <td>(2)</td> <td>(1)</td> </tr> </table> (1) Transmission speed *1 *2 000: 19200bps 001: 9600bps 010: 4800bps (2) Parity 10 (fixed): Even (3) Stop bit 1 (fixed): 2 bits | 0 | 0 | (3) | (2) | (1) |
| 0 | 0 | (3) | (2) | (1) | | | |
| #237 | Station No. | 1: Station No. 1 (fixed) | | | | | |

- *1 Indicates only the transmission speeds that can be set on the GOT side.
- *2 Set the same transmission speed of the GOT.
 For the transmission speed setting on the GOT side, refer to the following.
 Page 419 Setting communication interface (Communication settings)

Connecting to the link unit (JW-21CM)

Switch setting of the link unit (JW-21CM)

Make setting for each switch.



■Module No. switch (SW8)

The module No. switch is not used for communication with the GOT.

■Terminator switch(SW7)

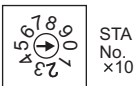
LT



| Settings | Setting details |
|----------|--------------------------------|
| ON*1 | Terminating resistor validated |

*1 Turn on only for the terminal station.

■Station number setting switch(SW1,SW2)



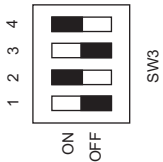
STA No. x10



STA No. x1

| Switch No. | Settings | Setting details |
|------------|--|-----------------|
| SW1 | Station No. lower digit (10 ⁰ digit) | 1 (fixed) |
| SW2 | Station No. upper digit (10 ¹ digit) | 0 (fixed) |

■ Operation mode setting switch(SW3)



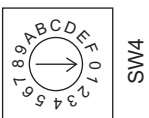
| Switch No. | Settings | Setting details |
|------------|-------------|-----------------|
| SW3-1 | OFF (fixed) | Invalid |
| SW3-2 | ON (fixed) | 4-wire type |
| SW3-3 | OFF (fixed) | Invalid |
| SW3-4 | ON (fixed) | Even |

■ Transmission speed setting switch (SW4)

Set the same transmission speed of the GOT.

For the transmission speed setting on the GOT side, refer to the following.

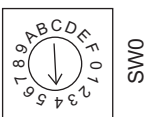
☞ Page 419 Setting communication interface (Communication settings)



| Setting ^{*1} | Setting details |
|-----------------------|-----------------|
| 0 | 19200bps |
| 1 | 9600bps |
| 2 | 4800bps |

*1 Indicates only the transmission speeds that can be set on the GOT side.

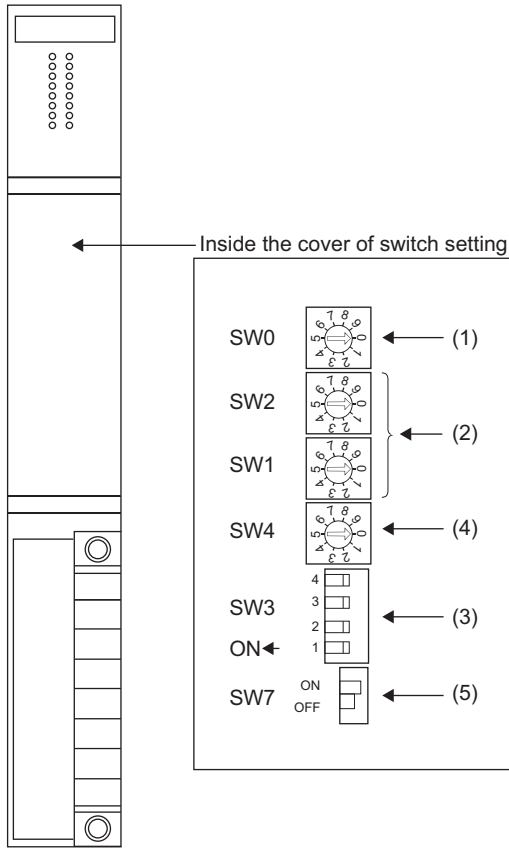
■ Function setting switch(SW0)



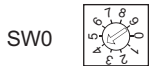
| Settings | Setting details |
|-----------|-----------------|
| 4 (fixed) | Computer link |

Connecting to the link unit (JW-10CM or ZW-10CM)

Switch setting of link unit (JW-10CM and ZW-10CM)



■Function setting switch(SW0)



| Settings | Setting details |
|-----------|------------------------------|
| 4 (fixed) | Computer link (command mode) |

■Station number switch(SW1,SW2)



| Switch No. | Settings | Setting details |
|------------|---|-----------------|
| SW1 | Station No. lower digit (10 ⁰ digit) | 1 (fixed) |
| SW2 | Station No. upper digit (10 ¹ digit) | 0 (fixed) |

■Operation mode setting switch(SW3)




| Switch No. | Settings | Setting details |
|------------|-------------|-----------------|
| SW3-1 | OFF (fixed) | Invalid |
| SW3-2 | ON (fixed) | 4-wire type |
| SW3-3 | OFF (fixed) | Invalid |
| SW3-4 | ON (fixed) | Even |

■Transmission speed setting switch (SW4)

Set the same transmission speed of the GOT.

For the transmission speed setting on the GOT side, refer to the following.

 Page 419 Setting communication interface (Communication settings)



| Setting ^{*1} | Setting details |
|-----------------------|-----------------|
| 0 | 19200bps |
| 1 | 9600bps |
| 2 | 4800bps |

*1 Indicates only the transmission speeds that can be set on the GOT side.

■Terminator switch(SW7)




| Settings | Setting details |
|------------------|--------------------------------|
| ON ^{*2} | Terminating resistor validated |

*1 Set to ON only for the terminal station.

9.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

 Page 665 SHARP equipment ([SHARP JW])

9.7 Precautions

Connecting to the communication port or link module


When connecting to the communication port or link module, 30 ms or more is required for the send delay time.

In the communication detail settings, set [Delay Time] to 30 ms or more.

If a communication timeout error occurs even when [Delay Time] is set to 30 ms or more, adjust the following settings so that no communication timeout error occurs.

- [Retry]
- [Startup Time]
- [Timeout Time]

For details on each setting, refer to the following.

 Page 420 Communication detail settings

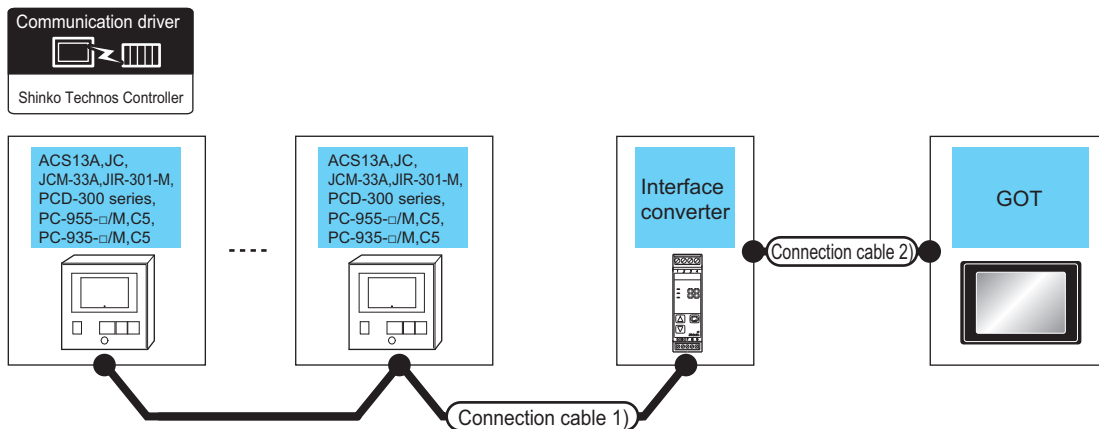
10.2 System Configuration








Connecting to ACS-13A, JC, JCM-33A, JIR-301-M, PCD-300, PC-900, ACD-13A, ACR-13A, or BC□2

In this section,

- PC-900 series represents PC-955-□/M,C5 and PC-935-□/M,C5.
- ACD-13A represents ACD-13A-□/M□,C5.
- ACR-13A represents ACR-13A□/M□,C5.

For the RS-232 connection (via interface converter)

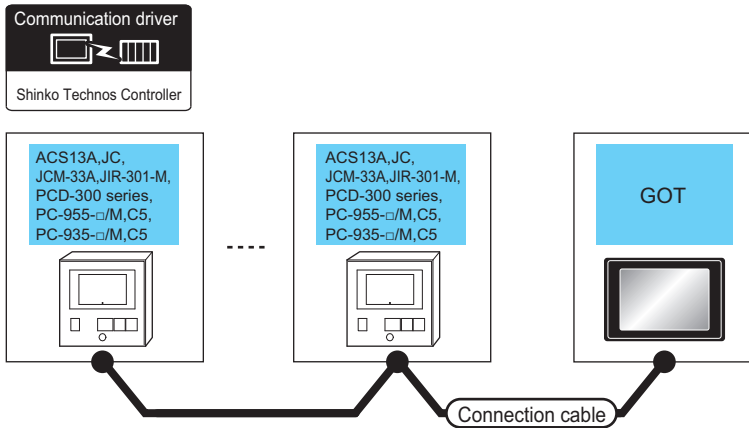


| Indicating controller | | Connection cable 1) | | Communi- cation converter *1 | Connection cable 2) | | GOT | | Number of connectable equipment |
|--|----------------------------|---|-----------------------|---------------------------------------|--|-----------------------|---|--|---------------------------------------|
| Model name | Commu- nication Type | Cable model Connection diagram number | Max. distan- ce | | Cable model Connection diagram number | Max. dista- nce | Option device*2 | Model | |
| ACS13A JC JCM-33A JIR-301-M PCD-300 Series PC-955-□/M,C5 PC-935-□/M,C5 ACD-13A-□/M□,C5 ACR-13A-□/M□,C5 BC□2 | RS-232 |  Page 437 RS-485 connection diagram 1) | 1,200m | IF-400 | RS-232C CFP-C2*1 | 15m | - (Built into GOT) |     | 31 indicating controllers for 1 GOT |
| | | | | | | GT15-RS2-9P |   | | |

*1 The communication converter is a product manufactured by Shinko Technos Co., Ltd. For details of the product, contact Shinko Technos Co., Ltd.

*2 GT25-W, GT2505-V does not support the option device.

For the RS-485 connection



| Indicating controller | | Connection cable | | GOT | | Number of connectable equipment |
|--|--------------------|--|---------------|---|-------|--|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | |
| ACS13A JC JCM-33A JIR-301-M PCD-300 Series PC-955-□/M, C5 PC-935-□/M, C5 ACD-13A-□/M□, C5 ACR-13A-□/M□, C5 BC□2 | RS-485 | Page 441 RS-485 connection diagram 7) | 500m | - (Built into GOT) | | 31 indicating controllers for 1 GOT |
| | | Page 438 RS-485 connection diagram 2) | 500m | GT15-RS4-TE | | |
| | | Page 440 RS-485 connection diagram 6) | 500m | FA-LTBGT2R4CBL05 (0.5m) FA-LTBGT2R4CBL10 (1m) FA-LTBGT2R4CBL20 (2m) | | |
| | | Page 442 RS-485 connection diagram 8) | 500m | GT14-RS2T4-9P *3 | | |
| | | | | | *1*2 | |
| | | | | | *2 | |
| | | | | | *4 | |

*1 Not available to GT25-W.

*2 Not available to GT2505-V.

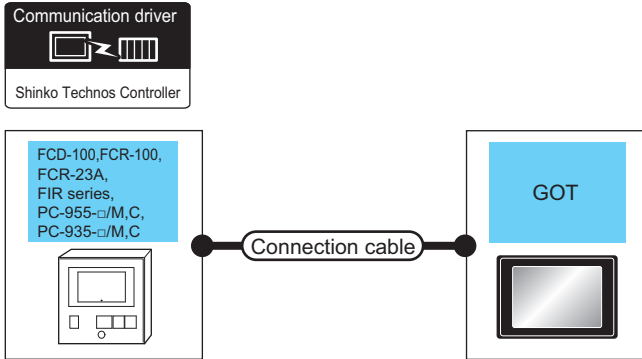
*3 Mount it on the RS-232 interface (GOT built-in).

*4 Only available to GT2505-V.

Connecting to FCD-100, FCR-100, FCR-23A, FIR, PC-900, ACD-13A, or ACR-13A

In this section,

- PC-900 series represents PC-955-□/M,C and PC-935-□/M,C.
- ACD-13A represents ACD-13A-□/M□,C.
- ACR-13A represents ACR-13A□/M□,C.



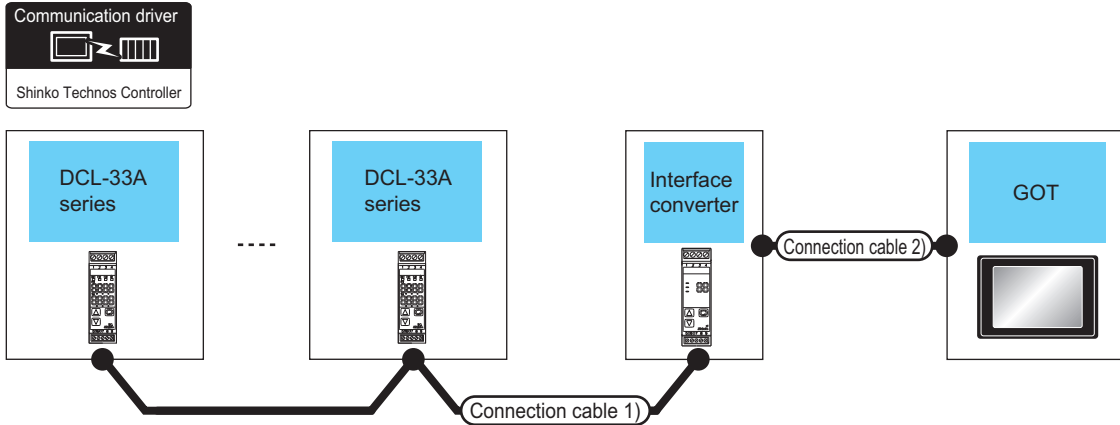
| Indicating controller*1 | | Connection cable | | GOT | | Number of connectable equipment |
|---|--------------------|---|---------------|--------------------|----------------------------|-------------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device*2 | Model | |
| FCD-100 FCR-100 FCR-23A FIR Series PC-955-□/M,C PC-935-□/M,C ACD-13A-□/M□,C ACR-13A-□/M□,C | RS-232 | GT09-C30R21401-4T(3m) or (User preparing) Page 436 RS-232 connection diagram 1) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GS 25 | 31 indicating controllers for 1 GOT |
| | | | | GT15-RS2-9P | GT 27 GT 25 | |

*1 Only the indicating controller equipped with RS-232 communication function can be connected.

*2 GT25-W, GT2505-V does not support the option device.

When connecting to DCL-33A Series

For the RS-232 connection (via communication converter)

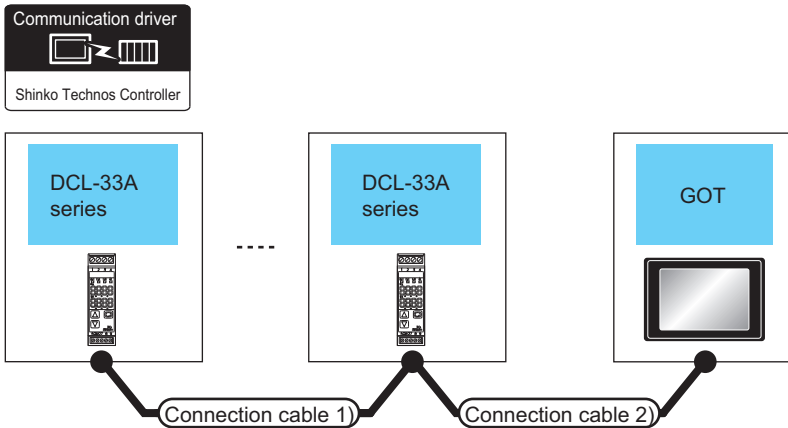


| Indicating controller | | Connection cable 1) | | Commu- nication convert er*1 | Connection cable 2) | | GOT | | Number of connectable equipment | | | | |
|-----------------------|--|---|-----------------------|---------------------------------------|---|-----------------------|--------------------|---|---------------------------------------|----------|----------|----------|---|
| Model name | Commu- nication Type | Cable model Connection diagram number | Max. distan- ce | | Cable model Connection diagram number | Max. distan- ce | Option device*2 | Model | | | | | |
| DCL-33A Series | RS-232 | RS485-CPP*1 | 1,200m | IF-400 | RS-232CCFP-C2*1 | 15m | - (Built into GOT) | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> <tr> <td>GT 23</td> <td>GS 25</td> </tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 31 indicating controllers for 1 GOT |
| | | | | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | | | | |
| GT15-RS2-9P | <table border="1"> <tr> <td>GT 27</td> <td>GT 25</td> </tr> </table> | GT 27 | GT 25 | | | | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | | | | |

*1 Product manufactured by Shinko Technos Co., Ltd. For details of the product, contact Shinko Technos Co., Ltd.

*2 GT25-W, GT2505-V does not support the option device.

For the RS-485 connection



| Indicating controller | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|-----------------------|--------------------|--|--|---------------|---|------------|-------------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Cable model Connection diagram number | | Option device | Model | |
| DCL-33A Series | RS-485 | RS-485 CPP ^{*1} | Page 439 RS-485 connection diagram 5) | 500m | - (Built into GOT) | | 31 indicating controllers for 1 GOT |
| | | | Page 438 RS-485 connection diagram 3) | 500m | GT15-RS4-TE | *2*3 | |
| | | | Page 439 RS-485 connection diagram 4) | 500m | FA-LTBGT2R4CBL05 (0.5m) FA-LTBGT2R4CBL10 (1m) FA-LTBGT2R4CBL20 (2m) | *3 | |
| | | | Page 442 RS-485 connection diagram 9) | 500m | GT14-RS2T4-9P ^{*4} | *5 | |

*1 Product manufactured by Shinko Technos Co., Ltd. For details of the product, contact Shinko Technos Co., Ltd.

*2 Not available to GT25-W.

*3 Not available to GT2505-V.

*4 Mount it on the RS-232 interface (GOT built-in).

*5 Only available to GT2505-V.

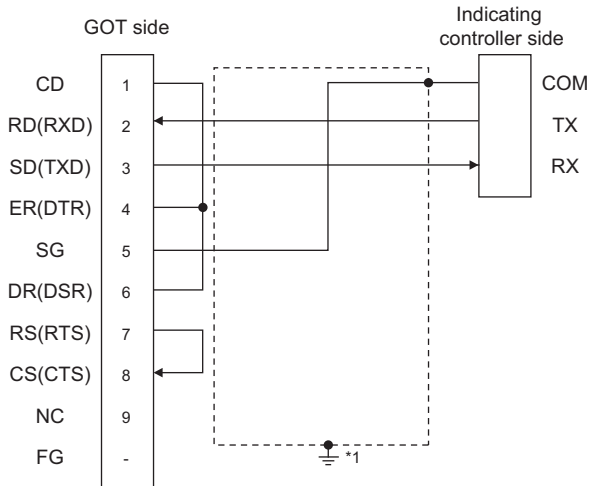
10.3 Connection Diagram

The following diagram shows the connection between the GOT and the controller.

RS-232 cable

Connection diagram

■RS-232 connection diagram 1)



*1 Connect FG grounding to the appropriate part of a cable shield line.

Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 15m or less.

■GOT side connector

For the GOT side connector, refer to the following.

📖 Page 58 GOT connector specifications

■Shinko Technos indicating controller side connector

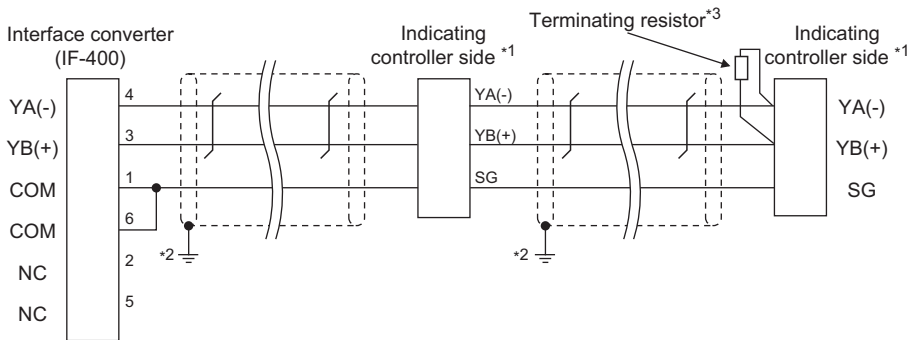
Use the connector compatible with the Shinko Technos indicating controller side.

For details, refer to the user's manual of the Shinko Technos indicating controller.

RS-485 cable

Connection diagram

■RS-485 connection diagram 1)



*1 Pin No. of communication converter differs depending on the model.
Refer to the following table.

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|-----------|---------|
| | JCS-33A | JCR-33A | JCD-33A | JCM-33A | JIR-301-M | ACS-13A |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 13 | 11 | 11 | 10 | 11 | 16 |
| YB(+) | 14 | 14 | 14 | 13 | 14 | 17 |
| SG | 15 | 17 | 17 | 14 | 17 | 18 |

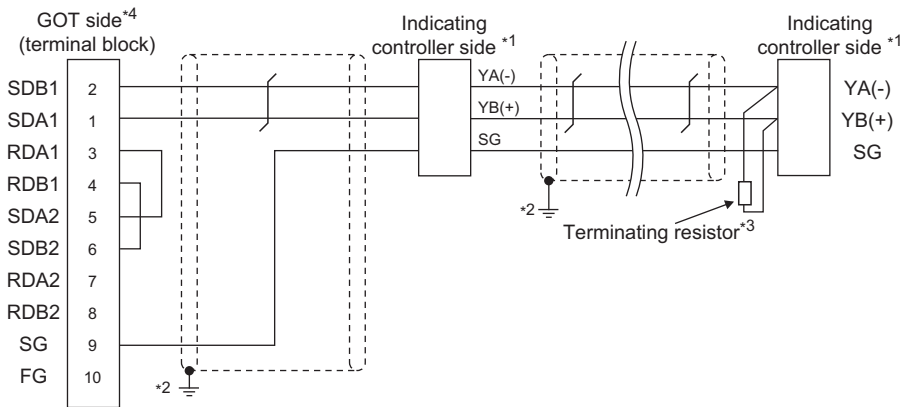
| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|---------|---------|
| | PCD-33A | PC-955 | PC-935 | ACD-13A | ACR-13A | BC□2 |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 11 | 11 | 11 | 13 | 13 | 16 |
| YB(+) | 14 | 12 | 12 | 14 | 14 | 17 |
| SG | 17 | 16 | 16 | 15 | 15 | 18 |

*2 Connect FG grounding to the appropriate part of a cable shield line.

*3 For details of the terminating resistor specifications, refer to the following manual.

📖 User's Manual of the Shinko Technos indicating controller

■RS-485 connection diagram 2)



*1 Pin No. of communication converter differs depending on the model.
Refer to the following table.

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|-----------|---------|
| | JCS-33A | JCR-33A | JCD-33A | JCM-33A | JIR-301-M | ACS-13A |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 13 | 11 | 11 | 10 | 11 | 16 |
| YB(+) | 14 | 14 | 14 | 13 | 14 | 17 |
| SG | 15 | 17 | 17 | 14 | 17 | 18 |

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|---------|---------|
| | PCD-33A | PC-955 | PC-935 | ACD-13A | ACR-13A | BC□2 |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 11 | 11 | 11 | 13 | 13 | 16 |
| YB(+) | 14 | 12 | 12 | 14 | 14 | 17 |
| SG | 17 | 16 | 16 | 15 | 15 | 18 |

*2 Connect FG grounding to the appropriate part of a cable shield line.

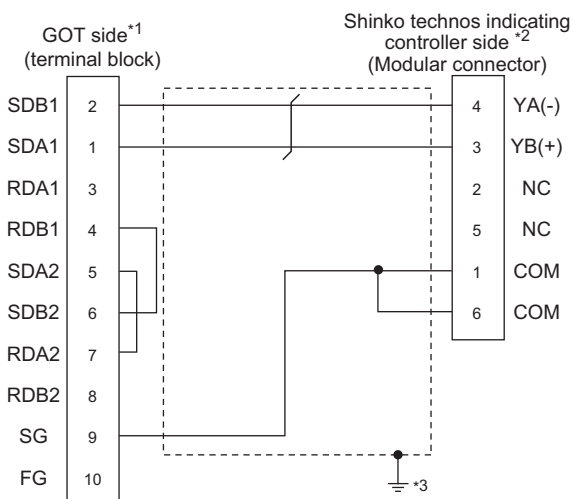
*3 For details of the terminating resistor specifications, refer to the following manual.

📖 User's Manual of the Shinko Technos indicating controller

*4 Set the terminating resistor of GOT side which will be a terminal.

📖 Page 443 Connecting terminating resistors

■RS-485 connection diagram 3)



*1 Set the terminating resistor of The GOT side.

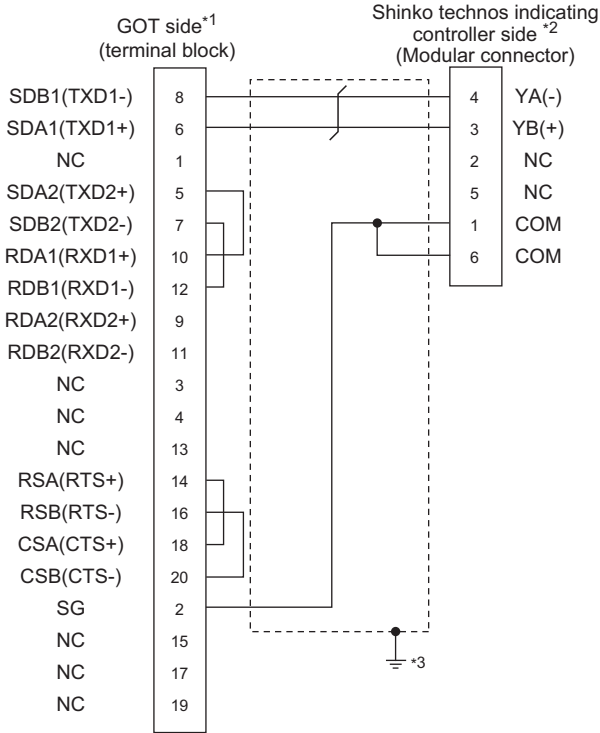
📖 Page 443 Connecting terminating resistors

*2 For details of the pin assignment, refer to the following manual.

📖 User's Manual of the Shinko Technos indicating controller

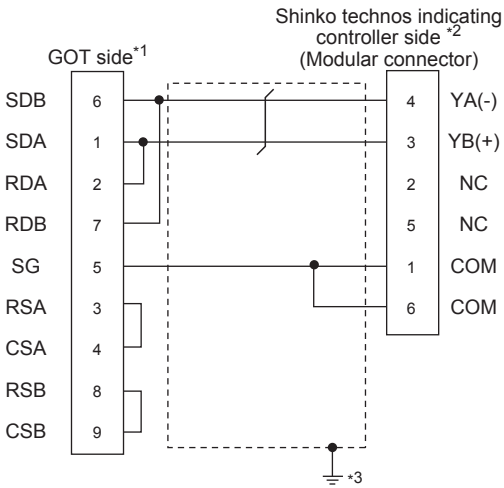
*3 Connect FG grounding to the appropriate part of a cable shield line.

RS-485 connection diagram 4)



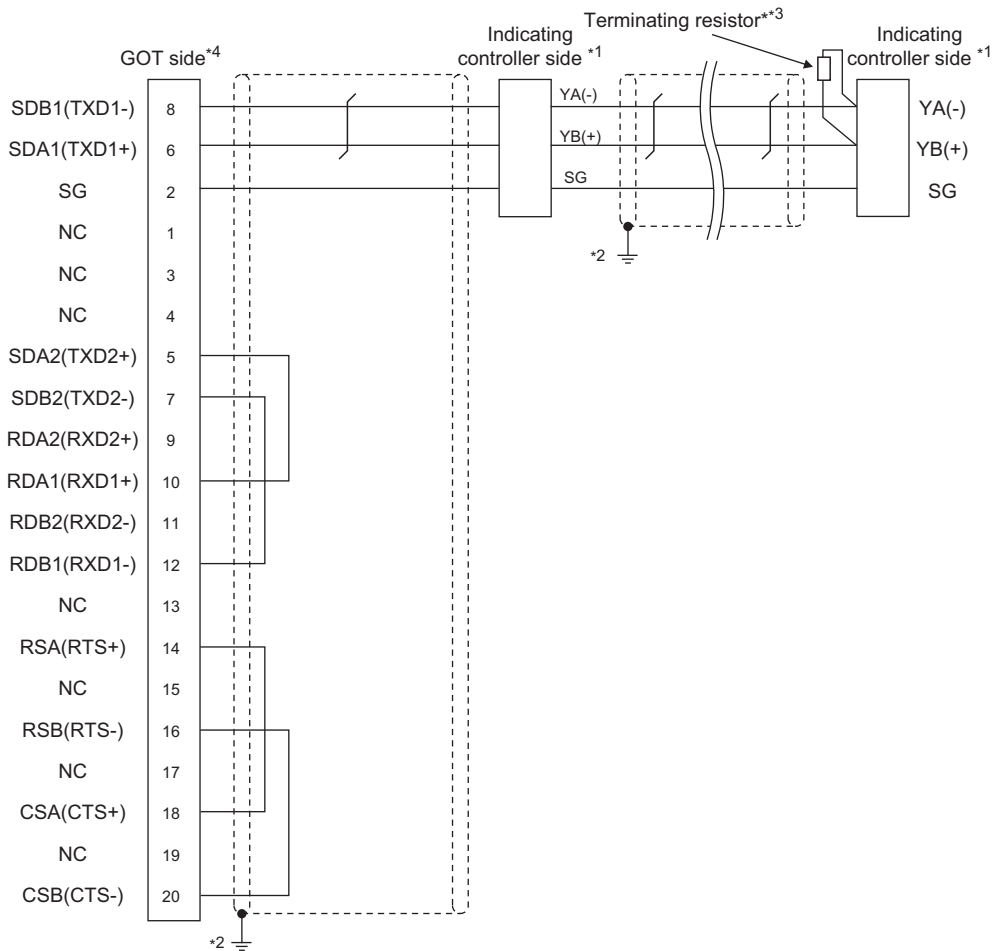
- *1 Set the terminating resistor of GOT side.
 Page 443 Connecting terminating resistors
- *2 For details of the pin assignment, refer to the following manual.
 User's Manual of the Shinko Technos indicating controller
- *3 Connect FG grounding to the appropriate part of a cable shield line.

RS-485 connection diagram 5)



- *1 Set the terminating resistor of GOT side.
 Page 443 Connecting terminating resistors
- *2 For details of the pin assignment, refer to the following manual.
 User's Manual of the Shinko Technos indicating controller
- *3 Connect FG grounding to the appropriate part of a cable shield line.

RS-485 connection diagram 6)



*1 Pin No. of communication converter differs depending on the model. Refer to the following table.

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|-----------|---------|
| | JCS-33A | JCR-33A | JCD-33A | JCM-33A | JIR-301-M | ACS-13A |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 13 | 11 | 11 | 10 | 11 | 16 |
| YB(+) | 14 | 14 | 14 | 13 | 14 | 17 |
| SG | 15 | 17 | 17 | 14 | 17 | 18 |

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|---------|---------|
| | PCD-33A | PC-955 | PC-935 | ACD-13A | ACR-13A | BC□2 |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 11 | 11 | 11 | 13 | 13 | 16 |
| YB(+) | 14 | 12 | 12 | 14 | 14 | 17 |
| SG | 17 | 16 | 16 | 15 | 15 | 18 |

*2 Connect FG grounding to the appropriate part of a cable shield line.

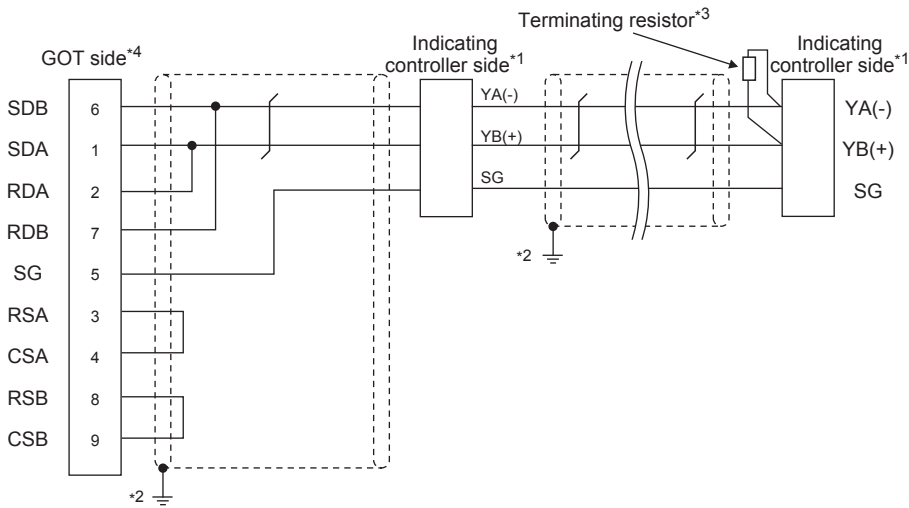
*3 For details of the terminating resistor specifications, refer to the following manual.

User's Manual of the Shinko Technos indicating controller

*4 Set the terminating resistor of GOT side which will be a terminal.

Page 443 Connecting terminating resistors

■RS-485 connection diagram 7)



*1 Pin No. of communication converter differs depending on the model. Refer to the following table.

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|-----------|---------|
| | JCS-33A | JCR-33A | JCD-33A | JCM-33A | JIR-301-M | ACS-13A |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 13 | 11 | 11 | 10 | 11 | 16 |
| YB(+) | 14 | 14 | 14 | 13 | 14 | 17 |
| SG | 15 | 17 | 17 | 14 | 17 | 18 |

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|---------|---------|
| | PCD-33A | PC-955 | PC-935 | ACD-13A | ACR-13A | BC□2 |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 11 | 11 | 11 | 13 | 13 | 16 |
| YB(+) | 14 | 12 | 12 | 14 | 14 | 17 |
| SG | 17 | 16 | 16 | 15 | 15 | 18 |

*2 Connect FG grounding to the appropriate part of a cable shield line.

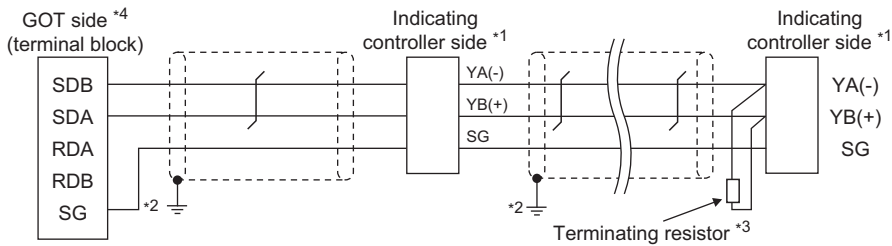
*3 For details of the terminating resistor specifications, refer to the following manual.

📖 User's Manual of the Shinko Technos indicating controller

*4 Set the terminating resistor of GOT side which will be a terminal.

📖 Page 443 Connecting terminating resistors

■RS-485 connection diagram 8)



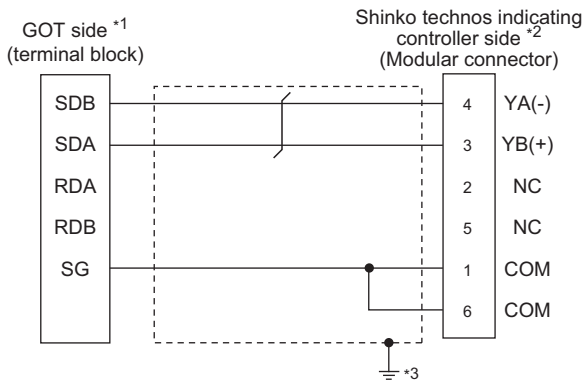
- *1 Pin No. of communication converter differs depending on the model.
Refer to the following table.

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|-----------|---------|
| | JCS-33A | JCR-33A | JCD-33A | JCM-33A | JIR-301-M | ACS-13A |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 13 | 11 | 11 | 10 | 11 | 16 |
| YB(+) | 14 | 14 | 14 | 13 | 14 | 17 |
| SG | 15 | 17 | 17 | 14 | 17 | 18 |

| Signal name | Model of indicating controller | | | | | |
|-------------|--------------------------------|---------|---------|---------|---------|---------|
| | PCD-33A | PC-955 | PC-935 | ACD-13A | ACR-13A | BC□2 |
| | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. | Pin No. |
| YA(-) | 11 | 11 | 11 | 13 | 13 | 16 |
| YB(+) | 14 | 12 | 12 | 14 | 14 | 17 |
| SG | 17 | 16 | 16 | 15 | 15 | 18 |

- *2 Connect FG grounding to the appropriate part of a cable shield line.
 *3 For details of the terminating resistor specifications, refer to the following manual.
 📖 User's Manual of the Shinko Technos indicating controller
 *4 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adapter as shown below.
 2-wire/4-wire: 2-wire (1Pair)
 Terminating resistor: 110 Ω
 📖 Page 68 Setting the RS-232/485 signal conversion adaptor

■RS-485 connection diagram 9)



- *1 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adapter as shown below.
 2-wire/4-wire: 2-wire (1Pair)
 Terminating resistor: 110 Ω
 📖 Page 68 Setting the RS-232/485 signal conversion adaptor
 *2 For details of the pin assignment, refer to the following manual.
 📖 User's Manual of the Shinko Technos indicating controller
 *3 Connect FG grounding to the appropriate part of a cable shield line.

Precautions when preparing a cable

■Cable length

- The length of the RS-485 cable used for direct connecting the indicating controller to the communication converter
The length of the RS-485 cable must be 1200m or less.
- The length of the RS-485 cable used for direct connecting the indicating controller to GOT
The length of the RS-485 cable must be 500m or less.

■GOT side connector

For the GOT side connector, refer to the following.


 Page 58 GOT connector specifications

■Shinko Technos indicating controller side connector

Use the connector compatible with the Shinko Technos indicating controller side.
For details, refer to the user's manual of the Shinko Technos indicating controller.


Connecting terminating resistors

■GOT side

- For GT27, GT25 (except GT2505-V), GT23, GS25
Set the terminating resistor setting switch of the GOT main unit to "Enable".
 - For GT2505-V
Set the terminating resistor selector to "110Ω".
- For the procedure to set the terminating resistor, refer to the following.
-  Page 62 Terminating resistors of GOT

■Shinko Technos indicating controller side

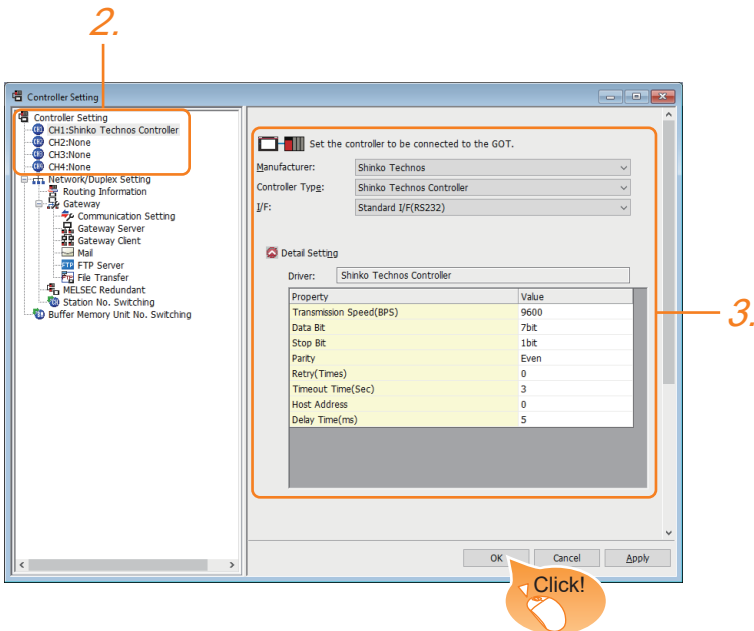
When connecting a Shinko Technos indicating controller to the GOT, a terminating resistor must be connected to the Shinko Technos indicating controller.

 User's Manual of the Shinko Technos indicating controller

10.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [Shinko Technos]
 - [Controller Type]: [Shinko Technos Controller]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 445 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].
For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 7 bit |
| Stop Bit | 1 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Host Address | 0 |
| Delay Time(ms) | 5 |


| Item | Description | Range |
|--------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 7bits) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bit) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 3 to 30sec |
| Host Address | Specify the host address (station No. of the GOT to which the indicating controller is connected) in the connected network. (Default: 0) | 0 to 94 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 5ms) | 0 to 300ms |

Point 

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings


When settings are made by GT Designer3 or the Utility, the latest setting is effective.

10.5 Indicating Controller Side Setting

Point

- Shinko Technos indicating controller



For details of Shinko Technos indicating controller, refer to the following manual.

 User's Manual of the Shinko Technos indicating controller

- Communication converter

For details on communication settings of the communication converter, refer to the following manual.

 User's Manual of communication converter

| Model name | | Refer to |
|-------------------------|--|--|
| Indicating controller | ACS-13A, DCL-33A, JC, JCM-33A, JIR-301-M, PCD-300, PC-900, FCD-100, FCR-100, FCR-23A, FIR, ACD-13A, ACR-13A, BC□2 Series |  Page 446 Connecting to indicating controller |
| Communication converter | IF-400 |  Page 446 Connecting to communication converter |

Connecting to indicating controller

Make the communication settings by operating the key of the indicating controller.

| Item | Set value |
|------------------------|-------------------------------|
| Transmission speed*1 | 9600bps, 19200bps, 38400bps*4 |
| Data bit | 7bits (fixed) |
| Parity bit | Even (fixed) |
| Stop bit | 1bit (fixed) |
| Station No. *1*2*3 | 0 to 95 |
| Communication protocol | Shinko protocol |

*1 Adjust the settings with GOT settings.

*2 Avoid duplication of the station No. with any of the other units.

*3 When setting the "95" to the station No., the read-out of data cannot be performed.

*4 The speed (38400bps) is available for ACD-13A, ACR-13A, and BC□2 series only.
However, select 9600bps or 19200bps to use a converter (IF-400).

Connecting to communication converter

Make the communication settings by operating the key of the communication converter.

| Item | Set value |
|--------------------------------------|--------------------------|
| Transmission speed*1 | 9600bps, 19200bps |
| Sending/Receiving switching period*2 | 1 character, 2 character |

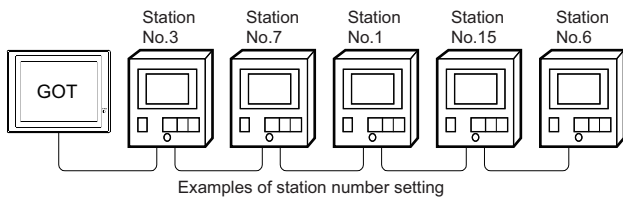
*1 Adjust the settings with GOT and the indicating controller settings.

*2 The setting of 1 character is recommended.

Station No. settings

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.



Direct specification

When setting the device, specify the station number of the indicating controller of which data is to be changed.

Specification range

0 to 94

Indirect specification

When setting the device, indirectly specify the station number of the indicating controller of which data is to be changed using the 16-bit GOT internal data register (GD10 to GD25).

When specifying the station No. from 100 to 115 on GT Designer3, the value of GD10 to GD25 compatible to the station No. specification will be the station No. of the indicating controller.

| Specification station NO. | Compatible device | Setting range |
|---------------------------|-------------------|--|
| 100 | GD10 | 0 to 94 |
| 101 | GD11 | For the setting other than the above, error (dedicated device is out of range) will occur. |
| 102 | GD12 | |
| 103 | GD13 | |
| 104 | GD14 | |
| 105 | GD15 | |
| 106 | GD16 | |
| 107 | GD17 | |
| 108 | GD18 | |
| 109 | GD19 | |
| 110 | GD20 | |
| 111 | GD21 | |
| 112 | GD22 | |
| 113 | GD23 | |
| 114 | GD24 | |
| 115 | GD25 | |

All station specification

Target station differs depending on write-in operation or read-out operation.

- For write-in operation, all station will be a target.

In the WORD BIT write-in operation, only the indicating controller whose station No. is the same as host address is applicable.

For details of host address setting, refer to the following.

☞ Page 444 Setting communication interface (Communication settings)

- In the read-out operation, only the indicating controller whose station No. is the same as host address is applicable.

For details of host address setting, refer to the following.

☞ Page 444 Setting communication interface (Communication settings)

10.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

 Page 669 SHINKO equipment ([Shinko Technos Controller])

10.7 Precautions

Station number settings of indicating controller

In the system configuration, the indicating controller with the station number set with the host address must be included.

For details of host address setting, refer to the following.

 Page 444 Setting communication interface (Communication settings)

GOT clock control

Since the indicating controller does not have a clock function, the settings of [time adjusting] or [time broad cast] by GOT clock control will be disabled.

When using the communication converter IF-400

When using the communication converter IF-400, some communication error may occur. Set the number of retries to more than one time.

Disconnecting some of multiple connected equipment

The GOT can disconnect some of multiple connected equipment by setting GOT internal device. For example, the faulty station where a communication timeout error occurs can be disconnected from connected equipment.

For details of GOT internal device setting, refer to the following manual.

 GT Designer3 (GOT2000) Screen Design Manual

11 CHINO CONTROLLER

- Page 449 Connectable Model List
- Page 450 System Configuration
- Page 461 Connection Diagram
- Page 475 GOT Side Settings
- Page 477 Controller Side Setting
- Page 488 Settable Device Range
- Page 488 Precautions

11.1 Connectable Model List

The following table shows the connectable models.

| Series | Model name*1 | Clock | Communication Type | Connectable GOT | Refer to |
|---------------|------------------|-------|----------------------------|-------------------------|--|
| LT230 Series | LT230 | × | RS-232 RS-485 | GT 27 GT 25 GT 23 GS 25 | ☞ Page 450 Connecting to LT230, LT300, LT400, LT830, DZ, DB series |
| LT300 Series | LT350 | × | RS-232 RS-422 RS-485 | | |
| | LT370 | | | | |
| LT400 Series | LT450 | × | | | |
| | LT470 | | | | |
| LT830 Series | LT830 | × | RS-232 RS-485 | | |
| DZ Series | DZ1000 DZ2000 | × | RS-232 RS-422 RS-485 | | |
| DB Series | DB1000 DB2000 | × | | | |
| KP Series | KP1000 KP2000 | × | RS-232 RS-422 RS-485 | GT 27 GT 25 GT 23 GS 25 | ☞ Page 453 Connecting to KP, AL3000, AH3000 series |
| AL3000 Series | AL3000 | × | | | |
| AH3000 Series | AH3000 | × | | | |
| SE3000 Series | SE3000 | × | RS-232 RS-422 RS-485 | GT 27 GT 25 GT 23 GS 25 | ☞ Page 456 Connecting to SE3000, JU, KE3000, LE5000 series |
| JU Series | JU | × | RS-422 RS-485 | | |
| KE Series | KE3000 | × | | | |
| LE5000 Series | LE5000 | × | | | |
| GT120 Series | GT120 | × | RS-232 RS-485 | GT 27 GT 25 GT 23 GS 25 | ☞ Page 459 Connecting to GT120 Series |

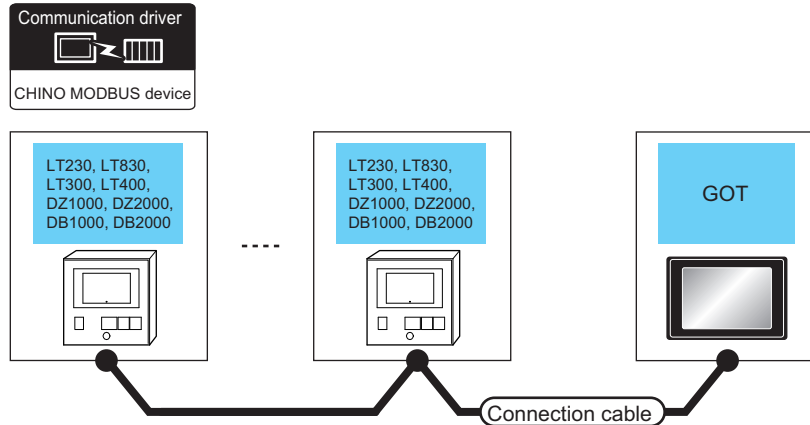
*1 From the models of controller, select the detailed model name which supports each communication type. For details of CHINO controller detailed model names, refer to the following catalog.

📖 Catalog of CHINO controllers













11.2 System Configuration

Connecting to LT230, LT300, LT400, LT830, DZ, DB series

When connecting to controller

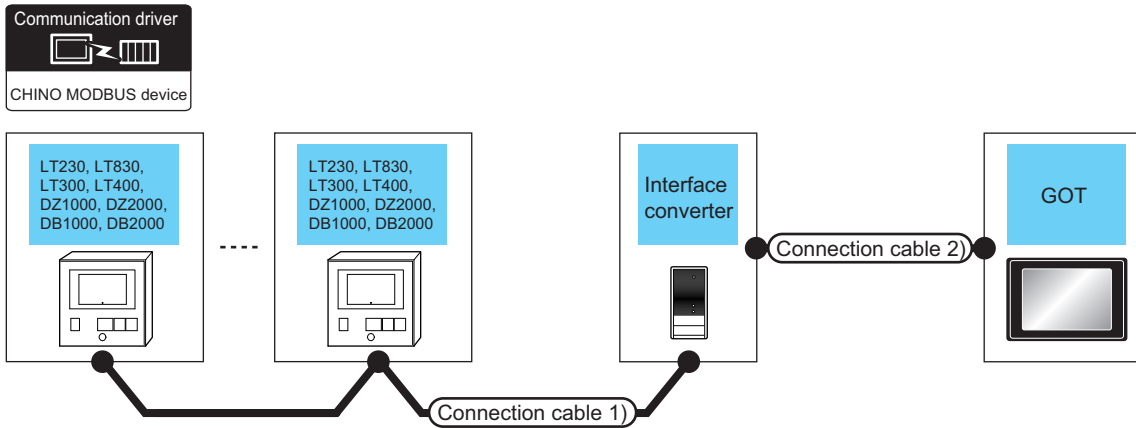


| Indicating controller | | Connection cable | | GOT | | Number of connectable equipment | |
|--|--------------------|--|---------------|--------------------|-------|---------------------------------|--------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| LT300 LT400 DZ1000 DZ2000 DB1000 DB2000 | RS-232 | Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 1 controller for 1 GOT | |
| | | | | GT15-RS2-9P | | | |
| | RS-422 | Page 463 RS422 connection diagram 2) | 1200m | - (Built into GOT) | | | 31 controllers for 1 GOT |
| | | | | GT15-RS4-9S | | | |
| Page 464 RS422 connection diagram 3) | 1200m | GT14-RS2T4-9P ^{*3} | | ^{*4} | | | |

| Indicating controller | | Connection cable | | GOT | | Number of connectable equipment | |
|--|--------------------|---|---------------|--|--|---------------------------------|------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device | Model | | |
| LT230 LT300 LT400 LT830 DZ1000 DZ2000 DB1000 DB2000 | RS-485 |  Page 466 RS485 connection diagram 1) | 1200m | FA-LTBGTR4CBL05 (0.5m) FA-LTBGTR4CBL10 (1m) FA-LTBGTR4CBL20 (2m) |     | 31 controllers for 1 GOT | |
| | |  Page 468 RS485 connection diagram 3) | 1200m | GT15-RS4-TE |   | | *2 |
| | |  Page 473 RS485 connection diagram 12) | 1200m | - (Built into GOT) |    | | *1*2 |

- *1 Not available to GT25-W.
- *2 Not available to GT2505-V.
- *3 Connect it to the RS-232 interface (built in the GOT).
- *4 Only available to GT2505-V.

When connecting to converter



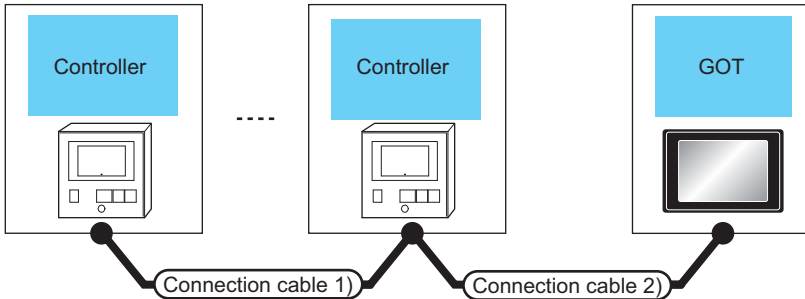
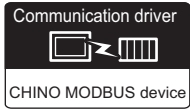
| Indicating controller | Connection cable 1) | | Converter*1 | | Connection cable 2) | | GOT | | Number of connectable equipment |
|--|---|--|---------------|------------|---|--|--------------------|-----------------|---------------------------------|
| | Model name | Cable model Connection diagram number | Max. distance | Model name | Commu nication Type | Cable model Connection diagram number | Max. distance | Option device*2 | |
| LT300 LT400 DZ1000 DZ2000 DB1000 DB2000 | Page 462 RS422 connection diagram 1) | 1200m | SC8-10 | RS-232 | Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 31 controllers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |
| LT230 LT300 LT400 LT830 DZ1000 DZ2000 DB1000 DB2000 | Page 467 RS485 connection diagram 2) | 1200m | SC8-10 | RS-232 | Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 31 controllers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | |

*1 The converter is a product manufactured by CHINO corporation. For details of the product, contact CHINO corporation.




*2 GT25-W, GT2505-V does not support the option device.

Connecting to KP, AL3000, AH3000 series

When connecting to controller



| Indicating controller | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment | |
|--------------------------------------|--------------------|--|--|---|-----------------------------|--------------------|---------------------------------|--|
| Model name | Communication Type | Cable model*1 Connection diagram number | Cable model*1 Connection diagram number | | Option device | Model | | |
| KP1000 KP2000 AL3000 AH3000 | RS-232 | - | RZ-CRS6□□ or <small>(User preparing)</small> Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 1 controller for 1 GOT | |
| | | | | | GT15-RS2-9P | | | |
| | | | | | | *2*3 | | |
| | RS-422 | RZ-CRA1□□ | <small>(User preparing)</small> Page 463 RS422 connection diagram 2) | <small>(User preparing)</small> Page 463 RS422 connection diagram 2) | 1200m | - (Built into GOT) | | |
| GT15-RS4-9S | | | | | | | | |
| | | <small>(User preparing)</small> Page 463 RS422 connection diagram 2) | | 1200m | - (Built into GOT) | | | |
| | | <small>(User preparing)</small> Page 464 RS422 connection diagram 3) | | 1200m | GT14-RS2T4-9P ^{*4} | | *5 | |

| Indicating controller | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment | |
|--------------------------------------|--------------------|--|--|---------------|--|---|---------------------------------|------|
| Model name | Communication Type | Cable model ^{*1} Connection diagram number | Cable model ^{*1} Connection diagram number | | Option device | Model | | |
| KP1000 KP2000 AL3000 AH3000 | RS-485 | RZ-CRA1□□ | (User preparing) Page 462 RS422 connection diagram 1) | 1200m | FA-LTBGTR2CBL05 (0.5m) FA-LTBGTR2CBL10 (1m) FA-LTBGTR2CBL20 (2m) |  | 31 controllers for 1 GOT | |
| | | (User preparing) Page 466 RS485 connection diagram 1) | | | | | | |
| | | RZ-LEC□□□ | (User preparing) Page 468 RS485 connection diagram 3) | 1200m | GT15-RS4-TE |  | | *2*3 |
| | | (User preparing) Page 473 RS485 connection diagram 12) | | 1200m | -(Built into GOT) |  | | |

*1 Product manufactured by CHINO corporation. For details of the product, contact CHINO corporation.

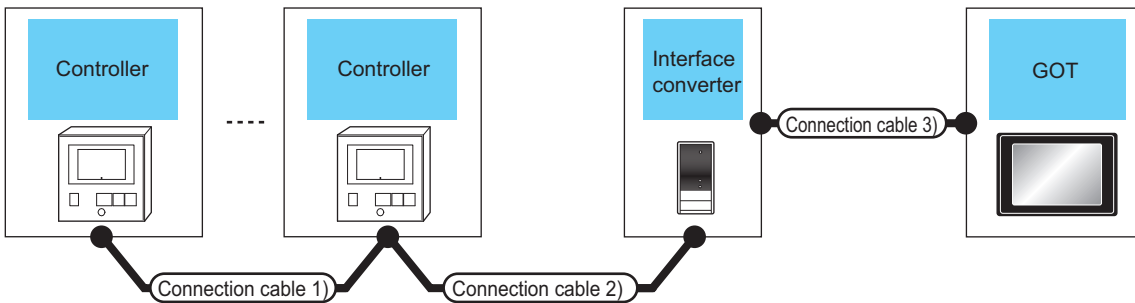
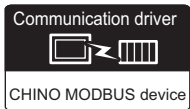
*2 Not available to GT25-W.

*3 Not available to GT2505-V.

*4 Connect it to the RS-232 interface (built in the GOT).

*5 Only available to GT2505-V.

When connecting to converter



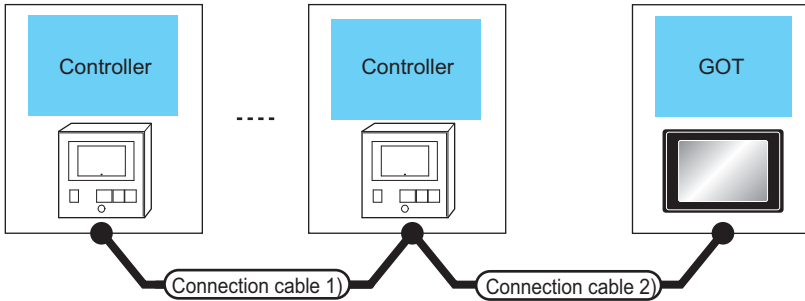
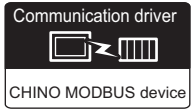
| Indicating controller | Connection cable 1) | Connection cable 2) | Max. distance | Converter*1 | | Connection cable 3) | | GOT | | Number of connectable equipment |
|--------------------------------------|---|--|---------------|--|------------|--|--|--------------------|-----------------|---------------------------------|
| | Model name | Cable model*1 Connection diagram number | | Cable model*1 Connection diagram number | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device*2 | |
| KP1000 KP2000 AL3000 AH3000 | RZ-CRA1□□ or Page 462 RS422 connection diagram 1) | RZ-CRA2□□ or Page 462 RS422 connection diagram 1) | 1200m | SC8-10 | RS-232 | RZ-CRS6□ or Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 31 controllers for 1 GOT |
| | | | | | | | | GT15-RS2-9P | | |
| | RZ-LEC□□□ or Page 467 RS485 connection diagram 2) | RZ-LEC□□□ (only KP1000, KP2000) RZ-LED□□□ (only AL3000, AH3000) or Page 467 RS485 connection diagram 2) | 1200m | SC8-10 | RS-232 | RZ-CRS6□ or Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | |
| | | | | | | | | GT15-RS2-9P | | |

*1 Product manufactured by CHINO corporation. For details of the product, contact CHINO corporation.

























*2 GT25-W, GT2505-V does not support the option device.

Connecting to SE3000, JU, KE3000, LE5000 series

When connecting to controller



| Indicating controller | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|-----------------------|--------------------|--|---|---------------|-------------------|----------|---------------------------------|
| Model name | Communication Type | Cable model*1 Connection diagram number | Cable model*1 Connection diagram number | | Option device | Model | |
| SE3000 | RS-232 | -- | RZ-CRS6□□ or Page 461 RS232 connection diagram 1) | 15m | -(Built into GOT) | | 1 controller for 1 GOT |
| | | | | | GT15-RS2-9P | *4*5 | |

| Indicating controller | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|----------------------------------|-------------------------------|---|--|---|--|--|---------------------------------|
| Model name | Communication Type | Cable model*1 Connection diagram number | Cable model*1 Connection diagram number | | Option device | Model | |
| SE3000 JU KE3000 LE5000 | RS-422 | RZ-CRA1□□*2 |  Page 463 RS422 connection diagram 2) | 1200m | - (Built into GOT) |     | 31 controllers for 1 GOT |
| | | | | | GT15-RS4-9S |   *4*5 | |
| | |  Page 463 RS422 connection diagram 2) | 1200m | - (Built into GOT) |     | | |
| | | | | GT15-RS4-9S |   *4*5 | | |
| RS-485 | RZ-LEC□□□*2 or RZ-CSS1Z2*3 |  Page 471 RS485 connection diagram 9) | 1200m | FA-LTBGTR2CBL05 (0.5m) FA-LTBGTR2CBL10 (1m) FA-LTBGTR2CBL20 (2m) |     | 31 controllers for 1 GOT | |
| | | | |  Page 471 RS485 connection diagram 9) | | | *5 |
| | RZ-LEC□□□*2 or RZ-CSS1Z2*3 |  Page 472 RS485 connection diagram 10) | 1200m | GT15-RS4-TE |   *4*5 | | |
| | | | |  Page 474 RS485 connection diagram 13) | 1200m | | - (Built into GOT) |

*1 Product manufactured by CHINO corporation. For details of the product, contact CHINO corporation.

*2 RZ-CRA1□□ and RZ-LEC□□□ can be used in SE3000, JU or LE5000 series only.

*3 RZ-CSS1Z2 can be used in JU series only.

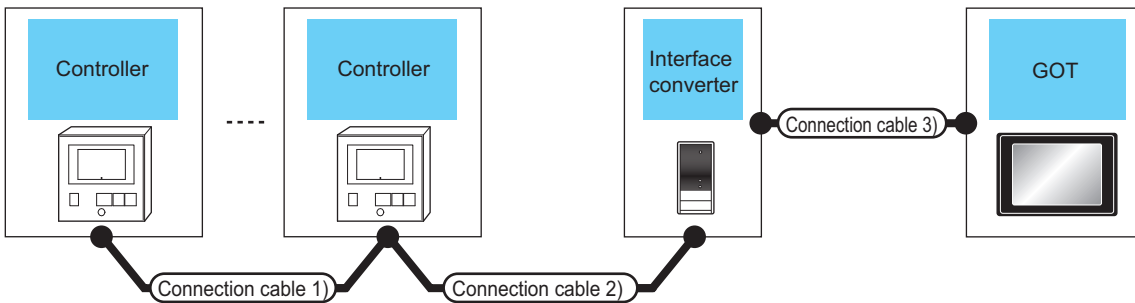
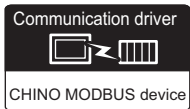
*4 Not available to GT25-W.

*5 Not available to GT2505-V.

*6 Connect it to the RS-232 interface (built in the GOT).

*7 Only available to GT2505-V.

When connecting to converter



| Indicating controller | Connection cable 1) | Connection cable 2) | Max. distance | Converter ^{*1} | | Connection cable 3) | | GOT | | Number of connectable equipment |
|----------------------------------|--|---|---------------|-------------------------|--------------------|---|---------------|-----------------------------|-------|---------------------------------|
| | | | | Model name | Communication Type | Cable model | Max. distance | Option device ^{*4} | Model | |
| SE3000 JU KE3000 LE5000 | RZ-CRA1□□ ^{*2} or Page 462 RS422 connection diagram 1) | RZ-CRA2□□ ^{*2} or Page 462 RS422 connection diagram 1) | 1200m | SC8 -10 | RS-232 | RZ-CRS6□ or Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 31 controllers for 1 GOT |
| | | | | | | | | GT15-RS2-9P | | |
| | RZ-LEC□□□ (only SE3000, JU, LE5000) or RZ-CSS1Z2 ^{*3} or Page 472 RS485 connection diagram 11) | RZ-LEC□□□ (only JU, LE5000) RZ-LED□□□ (only SE3000) or Page 472 RS485 connection diagram 11) | 1200m | SC8 -10 | RS-232 | RZ-CRS6□ or Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | |
| | | | | | | | | GT15-RS2-9P | | |

*1 Product manufactured by CHINO corporation. For details of the product, contact CHINO corporation.

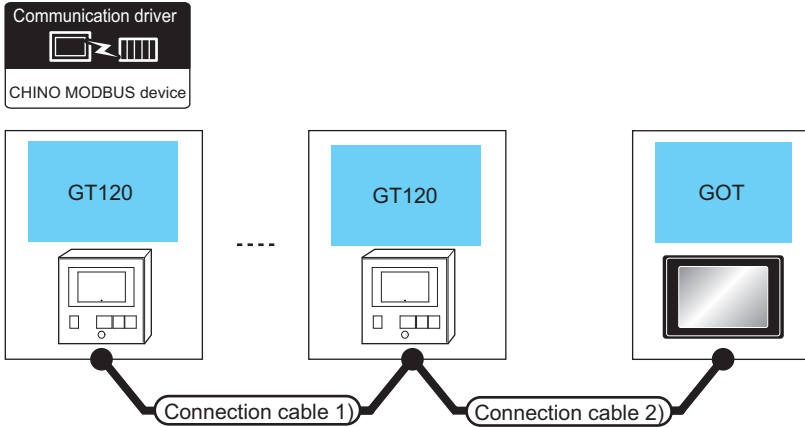
*2 RZ-CRA1□□ and RZ-CRA2□□ can be used in SE3000, JU or LE5000 series only.

*3 RZ-CSS1Z2 can be used in JU series only.

*4 GT25-W, GT2505-V does not support the option device.

Connecting to GT120 Series

When connecting to controller

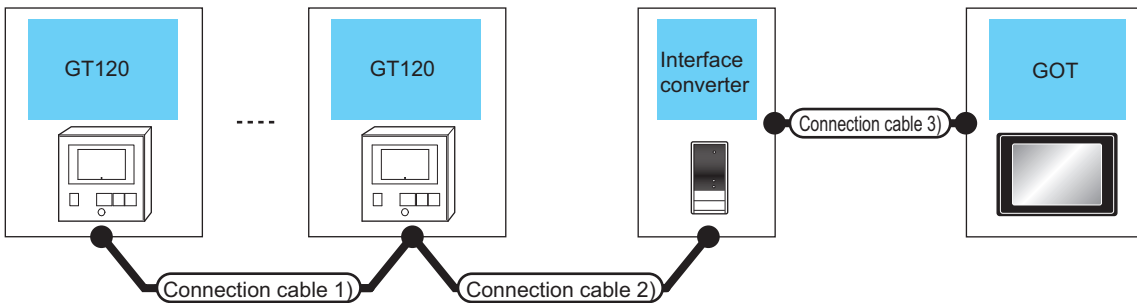
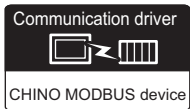


| Indicating controller | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|-----------------------|--------------------|---|--|---------------|---|----------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Cable model Connection diagram number | | Option device *1*2 | Model | |
| GT120 | RS-485 | GT8-CDD(60mm) or Page 468 RS485 connection diagram 4) | Page 469 RS485 connection diagram 5) | 1200m | -(Built into GOT) | | 31 controllers for 1 GOT |
| | | | Page 469 RS485 connection diagram 6) | 1200m | FA-LTBGT2R4CBL05 (0.5m) FA-LTBGT2R4CBL10 (1m) FA-LTBGT2R4CBL20 (2m) | | |
| | | | Page 470 RS485 connection diagram 7) | 1200m | GT15-RS4-TE | | |

*1 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL□□.

*2 GT2505-V does not support the option device.

When connecting to converter



| Indicating controller | Connection cable 1) | Connection cable 2) | Max. distance | Converter ^{*1} | | Connection cable 3) | | GOT | | Number of connectable equipment |
|-----------------------|---|---|---------------|-------------------------|--------------------|---------------------------------------|---------------|-----------------------------|-------|---------------------------------|
| | | | | Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | |
| GT120 | GT8-CDD(60mm) or Page 468 RS485 connection diagram 4) | GT8-CDM(3m) or Page 470 RS485 connection diagram 8) | 1200m | SC8-10 | RS-232 | Page 461 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 31 controllers for 1 GOT |
| | | | | | | | | GT15-RS2-9P | | |

*1 The converter is a product manufactured by CHINO corporation. For details of the product, contact CHINO corporation.

*2 GT25-W, GT2505-V does not support the option device.

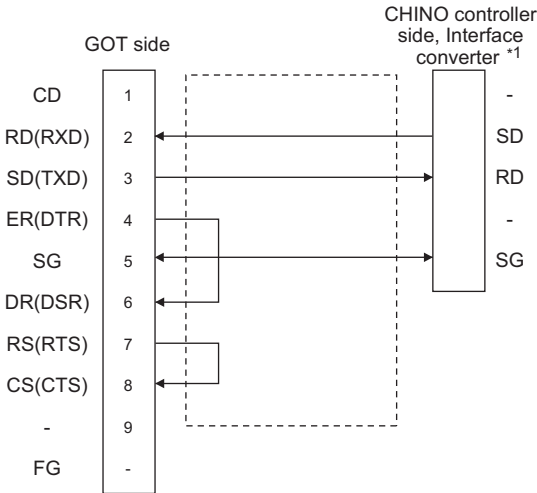
11.3 Connection Diagram

The following diagram shows the connection between the GOT and the controller.

RS-232 cable

Connection diagram

■RS232 connection diagram 1)



*1 Terminal number of the controller and the converter differ depending on the model. Refer to the following table.

| Signal name | Controller | | | | | Converter |
|-------------|--------------|--------------|----------------|--------------|--------------|--------------|
| | LT300 | LT400 | DZ1000, DZ2000 | DB1000 | DB2000 | SC8-10 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SD | 11 | 11 | 19 | 13 | 27 | 2 |
| RD | 13 | 13 | 21 | 12 | 26 | 1 |
| SG | 15 | 15 | 23 | 14 | 28 | 3 |

| Signal name | Controller | | | | |
|-------------|--------------|--------------------|----------|---------------|------------------|
| | KP1000 | KP2000 | | SE3000 | AL3000 AH3000 |
| | Terminal No. | Terminal No.*2 | | Terminal name | Terminal name |
| | | R*3, B*3, C*3, D*3 | B*3, E*3 | | |
| SD | 13 | 27 | | 30 | SD |
| RD | 12 | 26 | | 29 | RD |
| SG | 14 | 28 | | 31 | SG |

*2 For KP2000 series, the terminal No. differs according to the model.

*3 This indicates the symbols of the position 10) (third zone) of the following models.

Model: KP2 4) 5) 6) 7) 8) 9) 10) – 12) 13) 14)

For the symbol B, two terminal numbers are available. Select as necessary.

Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 15m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■CHINO controller side connector

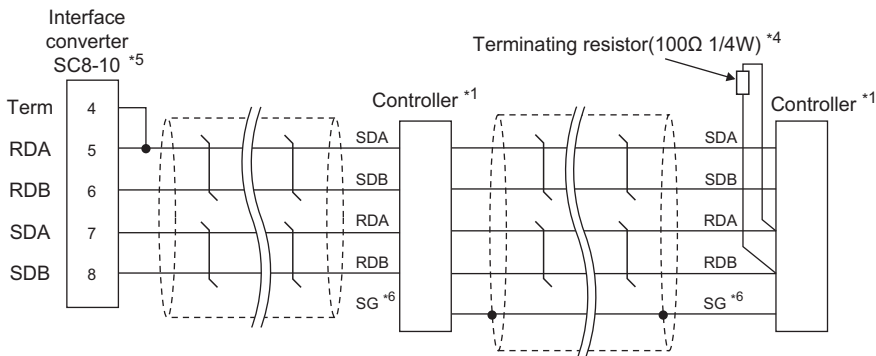
Use the connector compatible with the CHINO controller side module.

For details, refer to the user's manual of the CHINO controller.

RS-422 cable

Connection diagram

■RS422 connection diagram 1)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | | |
|-------------|-----------------|--------------|----------------|--------------|--------------|
| | LT300 | LT400 | DZ1000, DZ2000 | DB1000 | DB2000 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SDA | 11 | 11 | 19 | 14 | 28 |
| SDB | 12 | 12 | 20 | 15 | 29 |
| RDA | 13 | 13 | 21 | 12 | 26 |
| RDB | 14 | 14 | 22 | 13 | 27 |
| SG | 15 | 15 | 23 | 16 | 30 |

| Signal name | Controller type | | | | | | | |
|-------------|-----------------|----------------------------|-----------------------------------|---------------|------------------|--------------|---------------|---------------|
| | KP1000 | KP2000 | | SE3000 | AL3000 AH3000 | JU | KE3000 | LE5000 |
| | Terminal No. | Terminal No. ^{*2} | | Terminal name | Terminal name | Terminal No. | Terminal name | Terminal name |
| | | A ^{*3} | C ^{*3} , F ^{*3} | | | | | |
| SDA | 14 | 28 | 31 | SDA | SDA | 1 | SDA | SDA |
| SDB | 15 | 29 | 32 | SDB | SDB | 2 | SDB | SDB |
| RDA | 12 | 26 | 29 | RDA | RDA | 3 | RDA | RDA |
| RDB | 13 | 27 | 30 | RDB | RDB | 4 | RDB | RDB |
| SG | 16 | 30 | 28 | SG | SG | 5 | SG | SG |

*2 For KP2000 series, the terminal No. differs according to the model.

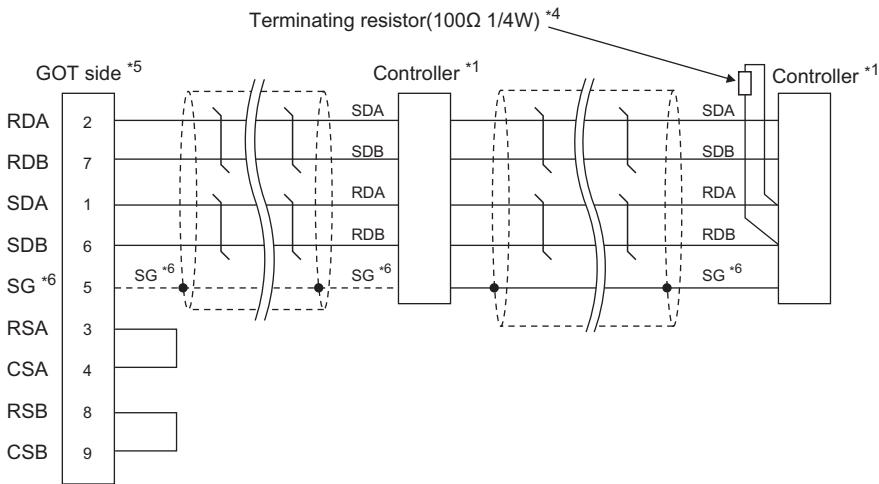
*3 This indicates the symbols of the position 10) (third zone) of the following models.
Model: KP2 4) 5) 6) 7) 8) 9) 10) – 12) 13) 14)

*4 Terminating resistor should be provided for a controller which will be a terminal.

*5 Set the Communication Type switch of the converter to RS-422.

*6 Do not connect SG of the controller and SG of the converter.

■RS422 connection diagram 2)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | | |
|-------------|-----------------|--------------|----------------|--------------|--------------|
| | LT300 | LT400 | DZ1000, DZ2000 | DB1000 | DB2000 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SDA | 11 | 11 | 19 | 14 | 28 |
| SDB | 12 | 12 | 20 | 15 | 29 |
| RDA | 13 | 13 | 21 | 12 | 26 |
| RDB | 14 | 14 | 22 | 13 | 27 |
| SG | 15 | 15 | 23 | 16 | 30 |

| Signal name | Controller type | | | | | | | |
|-------------|-----------------|----------------------------|-----------------------------------|---------------|------------------|--------------|---------------|---------------|
| | KP1000 | KP2000 | | SE3000 | AL3000 AH3000 | JU | KE3000 | LE5000 |
| | Terminal No. | Terminal No. ^{*2} | | Terminal name | Terminal name | Terminal No. | Terminal name | Terminal name |
| | | A ^{*3} | C ^{*3} , F ^{*3} | | | | | |
| SDA | 14 | 28 | 31 | SDA | SDA | 1 | SDA | SDA |
| SDB | 15 | 29 | 32 | SDB | SDB | 2 | SDB | SDB |
| RDA | 12 | 26 | 29 | RDA | RDA | 3 | RDA | RDA |
| RDB | 13 | 27 | 30 | RDB | RDB | 4 | RDB | RDB |
| SG | 16 | 30 | 28 | SG | SG | 5 | SG | SG |

*2 For KP2000 series, the terminal No. differs according to the model.

*3 This indicates the symbols of the position 10) (third zone) of the following models.
Model: KP2 4) 5) 6) 7) 8) 9) 10) – 12) 13) 14)

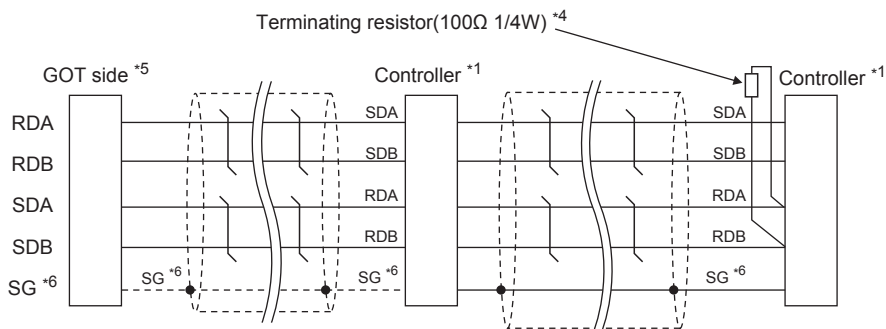
*4 Terminating resistor should be provided for a controller which will be a terminal.

*5 Set the terminating resistor of GOT side.

☞ Page 465 Connecting terminating resistors

*6 When connecting to DB1000 or DB200 Series, connect SG of the controller and SG of the GOT.

■RS422 connection diagram 3)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | | |
|-------------|-----------------|--------------|----------------|--------------|--------------|
| | LT300 | LT400 | DZ1000, DZ2000 | DB1000 | DB2000 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SDA | 11 | 11 | 19 | 14 | 28 |
| SDB | 12 | 12 | 20 | 15 | 29 |
| RDA | 13 | 13 | 21 | 12 | 26 |
| RDB | 14 | 14 | 22 | 13 | 27 |
| SG | 15 | 15 | 23 | 16 | 30 |

| Signal name | Controller type | | | | | | | |
|-------------|-----------------|-----------------|----|---------------|------------------|--------------|---------------|---------------|
| | KP1000 | KP2000 | | SE3000 | AL3000 AH3000 | JU | KE3000 | LE5000 |
| | Terminal No. | Terminal No. *2 | | Terminal name | Terminal name | Terminal No. | Terminal name | Terminal name |
| SDA | 14 | 28 | 31 | SDA | SDA | 1 | SDA | SDA |
| SDB | 15 | 29 | 32 | SDB | SDB | 2 | SDB | SDB |
| RDA | 12 | 26 | 29 | RDA | RDA | 3 | RDA | RDA |
| RDB | 13 | 27 | 30 | RDB | RDB | 4 | RDB | RDB |
| SG | 16 | 30 | 28 | SG | SG | 5 | SG | SG |

*2 For KP2000 series, the terminal No. differs according to the model.

*3 This indicates the symbols of the position 10) (third zone) of the following models.

Model: KP2 4) 5) 6) 7) 8) 9) 10) – 12) 13) 14)

*4 Terminating resistor should be provided for a controller which will be a terminal.

*5 Set the 2-wire/4-wire terminating resistor setting switch of the RS-232/485 signal conversion adaptor as shown below.

2-wire/4-wire: 4-wire (2 pairs)

Terminating resistor: 330Ω

☞ Page 68 Setting the RS-232/485 signal conversion adaptor

*6 When connecting to DB1000 or DB200 Series, connect SG of the controller and SG of the GOT.

Precautions when preparing a cable

■Cable length

The length of the RS-422 cable must be 1200m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■CHINO controller side connector

Use the connector compatible with the CHINO controller side module.

For details, refer to the user's manual of the CHINO controller.

Connecting terminating resistors

■GOT side


- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Enable".

- For GT2505-V


Set the terminating resistor selector to "330Ω".

For the procedure to set the terminating resistor, refer to the following.

 Page 62 Terminating resistors of GOT

■CHINO controller side

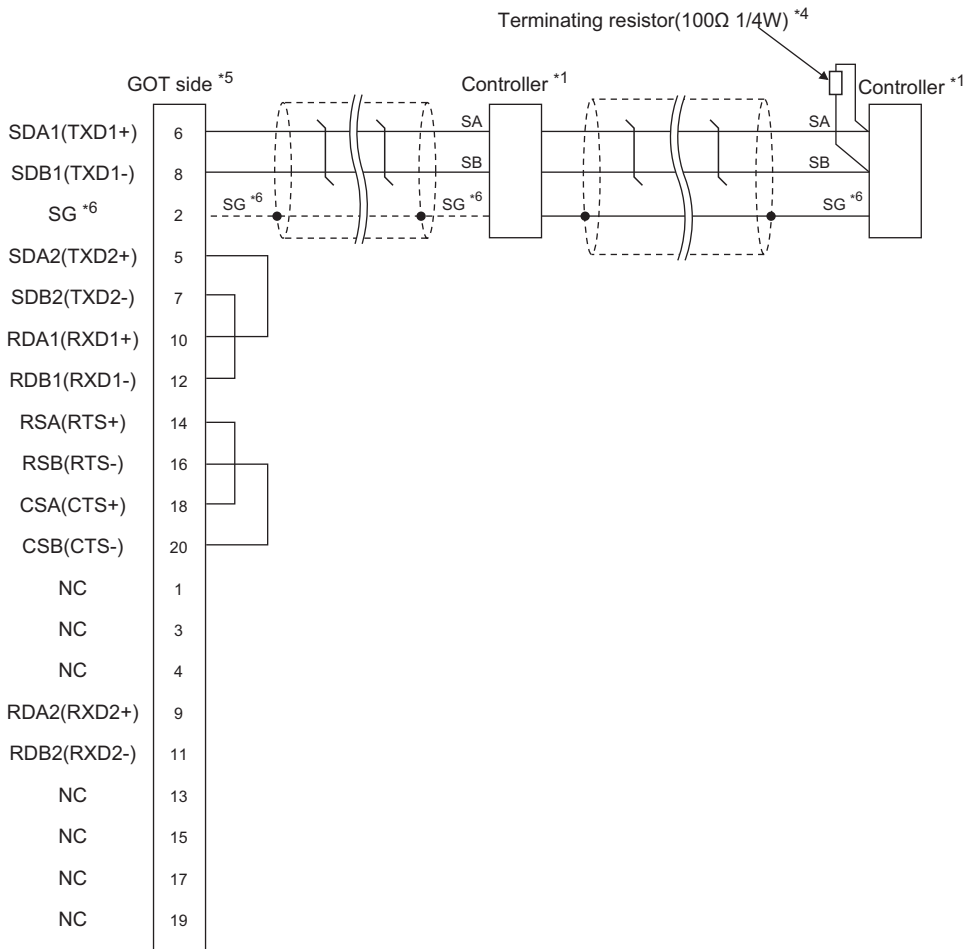
When connecting a CHINO controller to the GOT, a terminating resistor must be connected to the CHINO controller.

 User's Manual of the CHINO controller

RS-485 cable

Connection diagram

■RS485 connection diagram 1)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | | | | |
|-------------|-----------------|--------------|--------------|--------------|-------------------|--------------|--------------|
| | LT230 | LT300 | LT400 | LT830 | DZ1000, DZ2000 | DB1000 | DB2000 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SA | 6 | 11 | 11 | 6 | 19 | 12 | 26 |
| SB | 7 | 12 | 12 | 7 | 20 | 13 | 27 |
| SG | 8 | 15 | 15 | 8 | 23 | 14 | 28 |


| Signal name | Controller type | | | | |
|-------------|-----------------|------------------------|--|------------------|----|
| | KP1000 | KP2000 | | AL3000 AH3000 | |
| | Terminal No. | Terminal No. *2 | | Terminal name | |
| | | S *3, E *3, F *3, G *3 | | D *3, G *3 | |
| SA | 12 | 26 | | 29 | SA |
| SB | 13 | 27 | | 30 | SB |
| SG | 14 | 28 | | 31 | SG |

*2 For KP2000 series, the terminal No. differs according to the model.

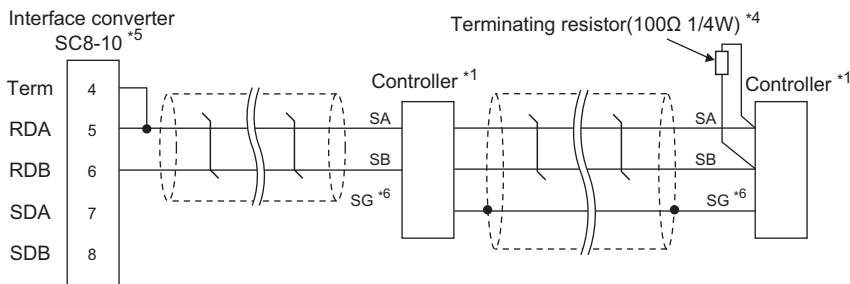
*3 This indicates the symbols of the position 10) (third zone) of the following models.

Model: KP2 4) 5) 6) 7) 8) 9) 10) – 12) 13) 14)

For the symbol G, two terminal numbers are available. Select as necessary.

- *4 Terminating resistor should be provided for a controller which will be a terminal.
- *5 Set the terminating resistor of GOT side.
 Page 465 Connecting terminating resistors
- *6 When connecting to DB1000 or DB200 Series, connect SG of the controller and SG of the GOT.

■RS485 connection diagram 2)



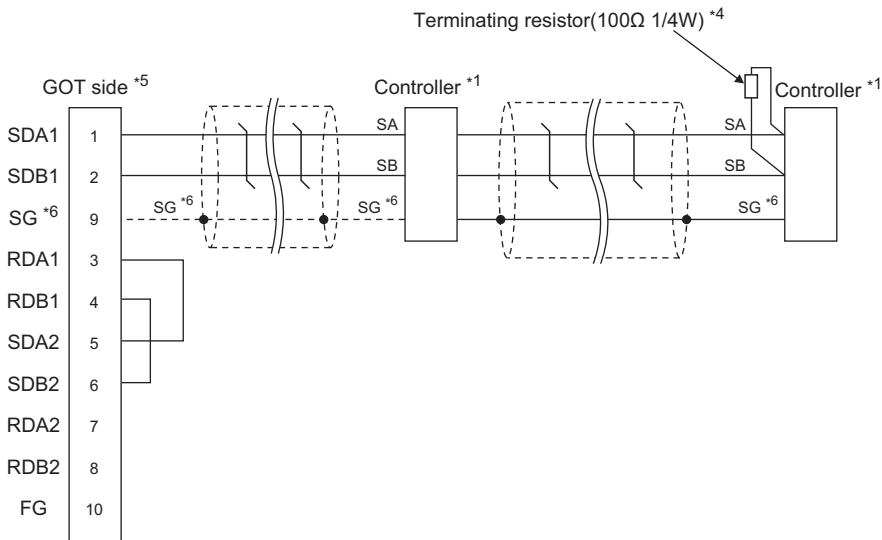
*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | | | | |
|-------------|-----------------|--------------|--------------|--------------|-------------------|--------------|--------------|
| | LT230 | LT300 | LT400 | LT830 | DZ1000, DZ2000 | DB1000 | DB2000 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SA | 6 | 11 | 11 | 6 | 19 | 12 | 26 |
| SB | 7 | 12 | 12 | 7 | 20 | 13 | 27 |
| SG | 8 | 15 | 15 | 8 | 23 | 14 | 28 |

| Signal name | Controller type | | | |
|-------------|-----------------|---|-----------------------------------|----|
| | KP1000 | KP2000 | AL3000 AH3000 | |
| | Terminal No. | Terminal No. ^{*2} | Terminal name | |
| | | S ^{*3} , E ^{*3} , F ^{*3} , G ^{*3} | D ^{*3} , G ^{*3} | |
| SA | 12 | 26 | 29 | SA |
| SB | 13 | 27 | 30 | SB |
| SG | 14 | 28 | 31 | SG |

- *2 For KP2000 series, the terminal No. differs according to the model.
- *3 This indicates the symbols of the position 10) (third zone) of the following models.
 Model: KP2 4) 5) 6) 7) 8) 9) 10) – 12) 13) 14)
 For the symbol G, two terminal numbers are available. Select as necessary.
- *4 Terminating resistor should be provided for a controller which will be a terminal.
- *5 Set the Communication Type switch of the converter to RS-485.
- *6 Do not connect SG of the controller and SG of the GOT.

■RS485 connection diagram 3)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | | | | |
|-------------|-----------------|--------------|--------------|--------------|-------------------|--------------|--------------|
| | LT230 | LT300 | LT400 | LT830 | DZ1000, DZ2000 | DB1000 | DB2000 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SA | 6 | 11 | 11 | 6 | 19 | 12 | 26 |
| SB | 7 | 12 | 12 | 7 | 20 | 13 | 27 |
| SG | 8 | 15 | 15 | 8 | 23 | 14 | 28 |

| Signal name | Controller type | | | |
|-------------|-----------------|------------------------|------------|------------------|
| | KP1000 | KP2000 | | AL3000 AH3000 |
| | Terminal No. | Terminal No. *2 | | Terminal name |
| | | S *3, E *3, F *3, G *3 | D *3, G *3 | |
| SA | 12 | 26 | 29 | SA |
| SB | 13 | 27 | 30 | SB |
| SG | 14 | 28 | 31 | SG |

*2 For KP2000 series, the terminal No. differs according to the model.

*3 This indicates the symbols of the position 10) (third zone) of the following models.

Model: KP2 4) 5) 6) 7) 8) 9) 10) – 12) 13) 14)

For the symbol G, two terminal numbers are available. Select as necessary.

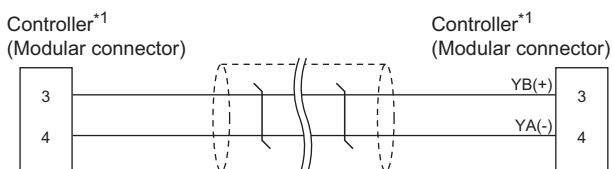
*4 Terminating resistor should be provided for a controller which will be a terminal.

*5 Set the terminating resistor of GOT side.

Page 465 Connecting terminating resistors

*6 When connecting to DB1000 or DB200 Series, connect SG of the controller and SG of the GOT.

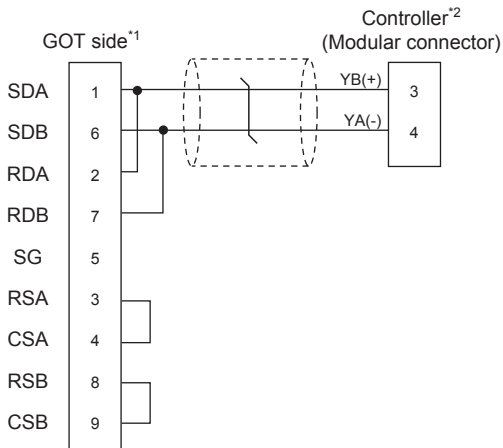
■RS485 connection diagram 4)



*1 For details of the pin assignment, refer to the following manual.

User's Manual of the CHINO controller

RS485 connection diagram 5)



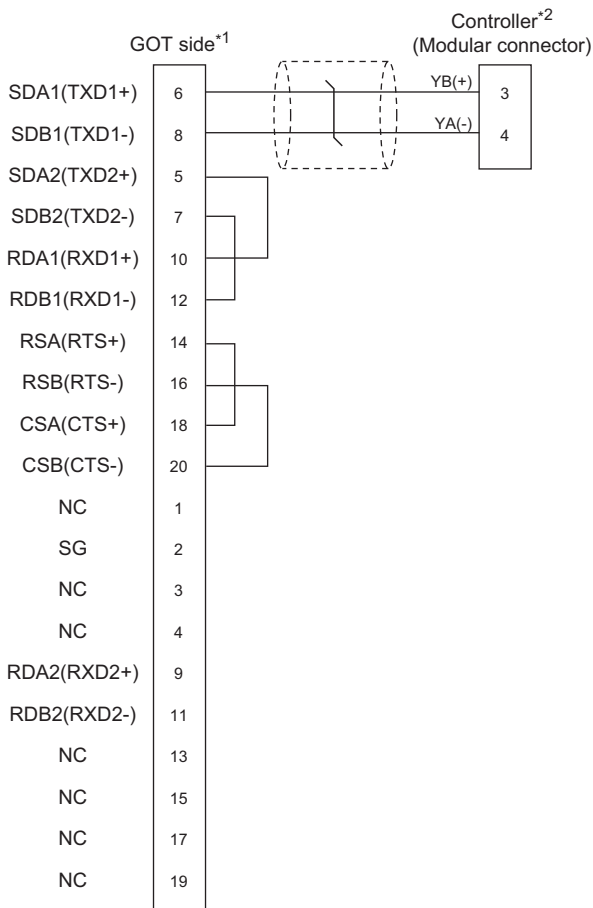
*1 Set the terminating resistor of GOT side.

☞ Page 465 Connecting terminating resistors

*2 For details of the pin assignment, refer to the following manual.

📖 User's Manual of the CHINO controller

RS485 connection diagram 6)



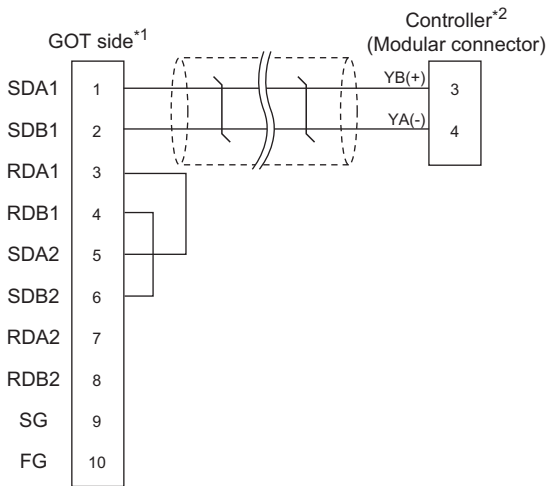
*1 Set the terminating resistor of GOT side.

☞ Page 465 Connecting terminating resistors

*2 For details of the pin assignment, refer to the following manual.

📖 User's Manual of the CHINO controller

■RS485 connection diagram 7)



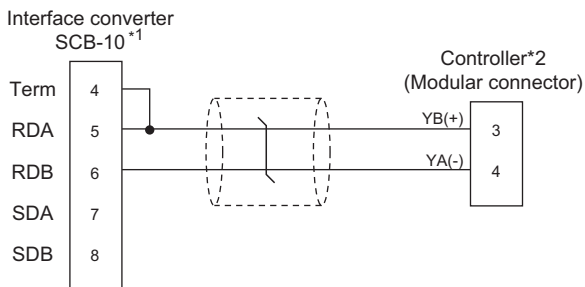
*1 Set the terminating resistor of GOT side.

Page 465 Connecting terminating resistors

*2 For details of the pin assignment, refer to the following manual.

User's Manual of the CHINO controller

■RS485 connection diagram 8)

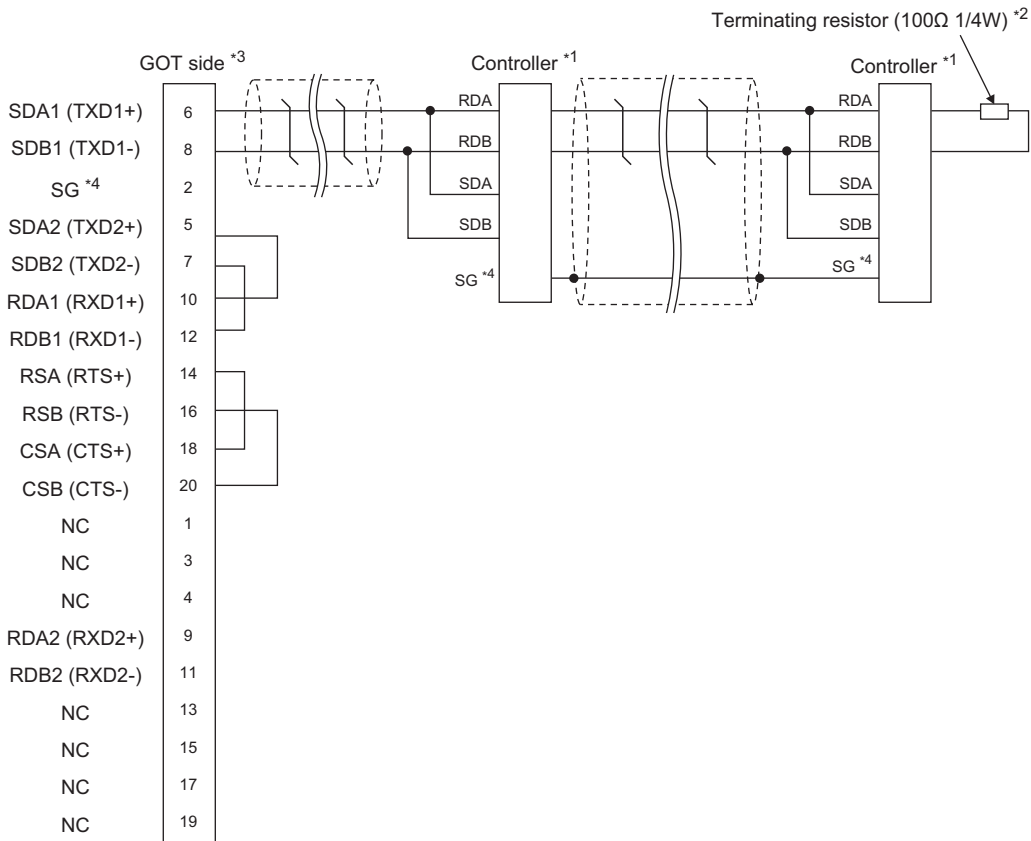


*1 Set the Communication Type switch of the converter to RS-485.

*2 For details of the pin assignment, refer to the following manual.

User's Manual of the CHINO controller

■RS485 connection diagram 9)




*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | |
|-------------|-----------------|--------------|---------------|---------------|
| | SE3000 | JU | KE3000 | LE5000 |
| | Terminal name | Terminal No. | Terminal name | Terminal name |
| RDA | RDA | 3 | RDA | RDA |
| RDB | RDB | 4 | RDB | RDB |
| SDA | SDA | 1 | SDA | SDA |
| SDB | SDB | 2 | SDB | SDB |
| SG | SG | 5 | SG | SG |

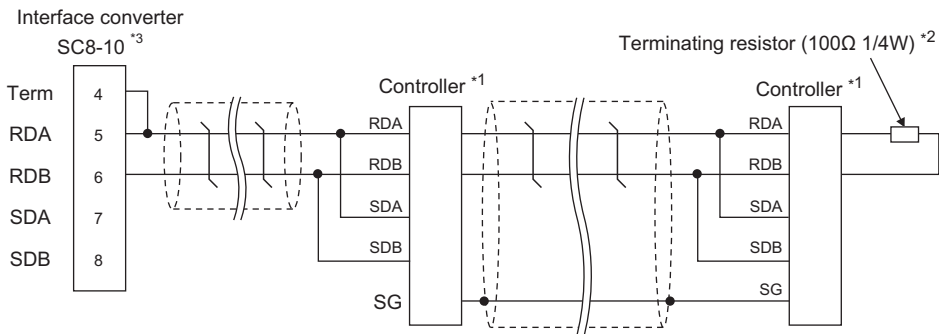
*2 Terminating resistor should be provided for a controller which will be terminating resistors.

*3 Set the terminating resistor of The GOT side.

 Page 465 Connecting terminating resistors

*4 Do not connect SG of the controller and SG of the GOT.

■RS485 connection diagram 10)



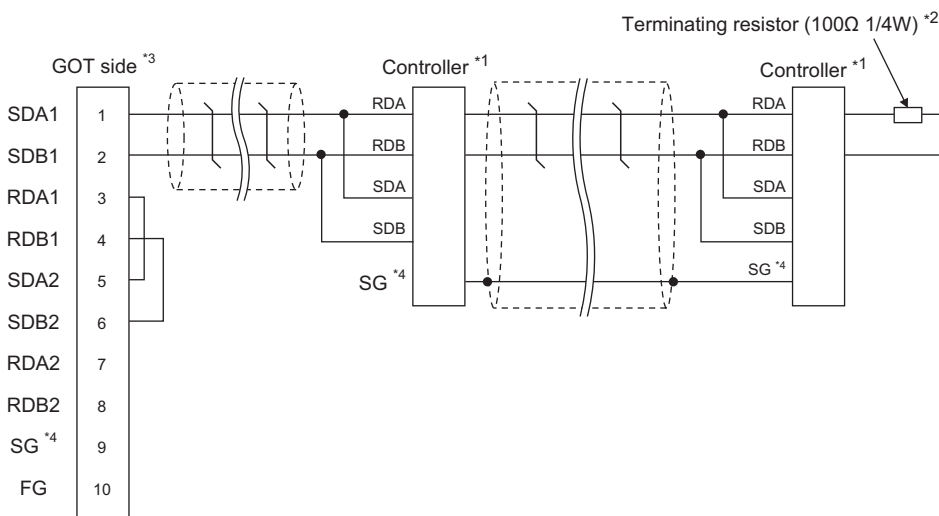
*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | |
|-------------|-----------------|--------------|---------------|---------------|
| | SE3000 | JU | KE3000 | LE5000 |
| | Terminal name | Terminal No. | Terminal name | Terminal name |
| RDA | RDA | 3 | RDA | RDA |
| RDB | RDB | 4 | RDB | RDB |
| SDA | SDA | 1 | SDA | SDA |
| SDB | SDB | 2 | SDB | SDB |
| SG | SG | 5 | SG | SG |

*2 Terminating resistor should be provided for a controller which will be terminating resistors.

*3 Set the Communication Type switch of the converter to RS-485.

■RS485 connection diagram 11)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | |
|-------------|-----------------|--------------|---------------|---------------|
| | SE3000 | JU | KE3000 | LE5000 |
| | Terminal name | Terminal No. | Terminal name | Terminal name |
| RDA | RDA | 3 | RDA | RDA |
| RDB | RDB | 4 | RDB | RDB |
| SDA | SDA | 1 | SDA | SDA |
| SDB | SDB | 2 | SDB | SDB |
| SG | SG | 5 | SG | SG |

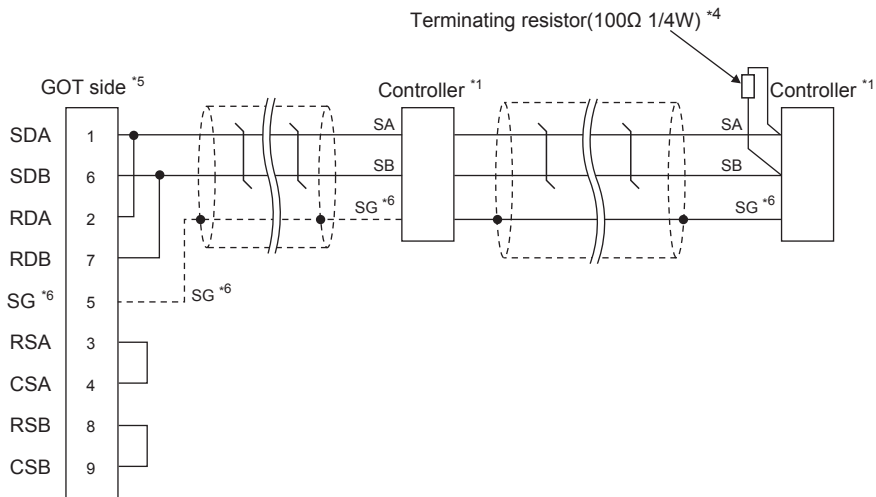
*2 Terminating resistor should be provided for a controller which will be terminating resistors.

*3 Set the terminating resistor of The GOT side.

☞ Page 465 Connecting terminating resistors

*4 Do not connect SG of the controller and SG of the GOT.

■RS485 connection diagram 12)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | | | | |
|-------------|-----------------|--------------|--------------|--------------|-------------------|--------------|--------------|
| | LT230 | LT300 | LT400 | LT830 | DZ1000, DZ2000 | DB1000 | DB2000 |
| | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. | Terminal No. |
| SA | 6 | 11 | 11 | 6 | 19 | 12 | 26 |
| SB | 7 | 12 | 12 | 7 | 20 | 13 | 27 |
| SG | 8 | 15 | 15 | 8 | 23 | 14 | 28 |

| Signal name | Controller type | | | |
|-------------|-----------------|------------------------|------------------|----|
| | KP1000 | KP2000 | AL3000 AH3000 | |
| | Terminal No. | Terminal No. *2 | Terminal name | |
| | | S *3, E *3, F *3, G *3 | D *3, G *3 | |
| SA | 12 | 26 | 29 | SA |
| SB | 13 | 27 | 30 | SB |
| SG | 14 | 28 | 31 | SG |

*2 For KP2000 series, the terminal No. differs according to the model.

*3 This indicates the symbols of the position 10) (third zone) of the following models.

Model: KP2 4) 5) 6) 7) 8) 9) 10) - 12) 13) 14)

For the symbol G, two terminal numbers are available. Select as necessary.

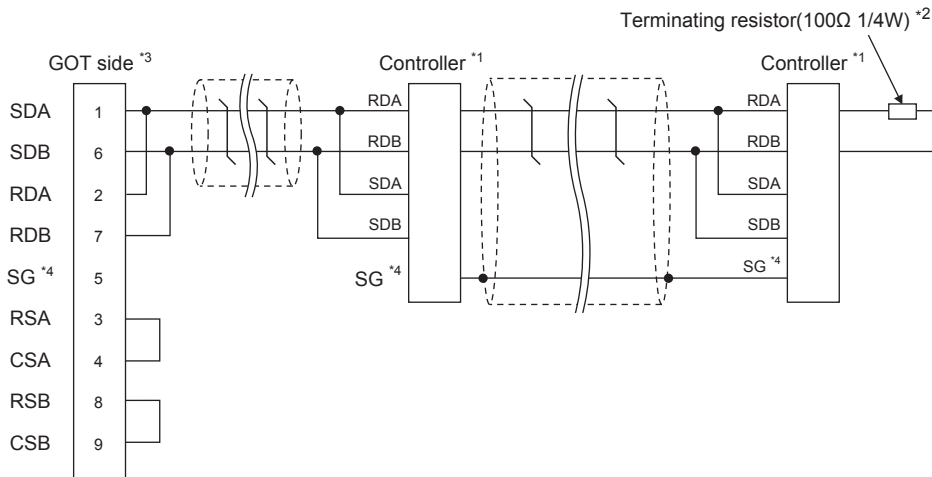
*4 Terminating resistor should be provided for a controller which will be terminating resistors.

*5 Set the terminating resistor of The GOT side.

☞ Page 465 Connecting terminating resistors

*6 When connecting to DB1000 or DB200 Series, connect SG of the controller and SG of the GOT.

■RS485 connection diagram 13)



*1 Pin No. of controller differs depending on the model. Refer to the following table.

| Signal name | Controller type | | | |
|-------------|-----------------|--------------|---------------|---------------|
| | SE3000 | JU | KE3000 | LE5000 |
| | Terminal name | Terminal No. | Terminal name | Terminal name |
| RDA | RDA | 3 | RDA | RDA |
| RDB | RDB | 4 | RDB | RDB |
| SDA | SDA | 1 | SDA | SDA |
| SDB | SDB | 2 | SDB | SDB |
| SG | SG | 5 | SG | SG |

*2 Terminating resistor should be provided for a controller which will be terminating resistors.

*3 Set the terminating resistor of The GOT side.

☞ Page 465 Connecting terminating resistors

*4 Do not connect SG of the controller and SG of the GOT.

Precautions when preparing a cable

■Cable length

The maximum length of the RS-485 cable must be 1,200m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■CHINO controller side connector

Use the connector compatible with the CHINO controller side module.

For details, refer to the user's manual of the CHINO controller.

Connecting terminating resistors

■GOT side

- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Enable".

- For GT2505-V

Set the terminating resistor selector to "110Ω".

☞ Page 62 Terminating resistors of GOT

■CHINO controller side

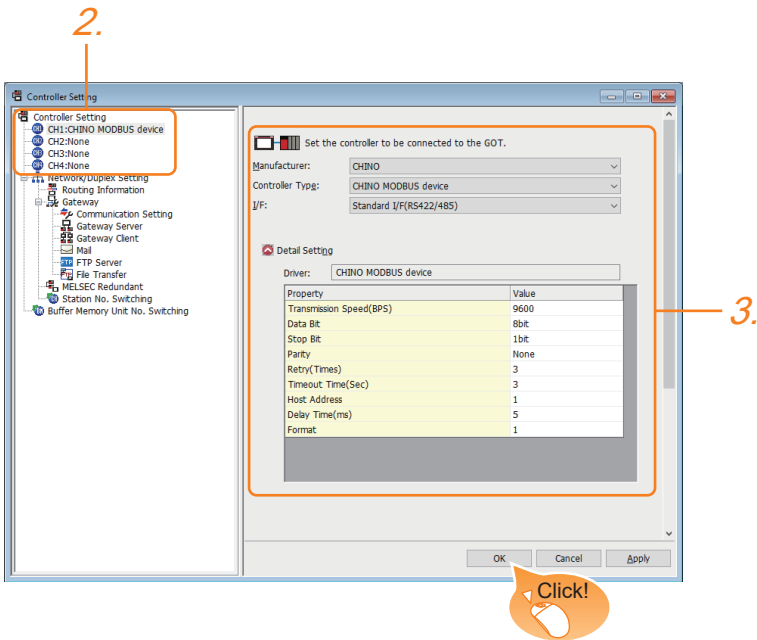
When connecting a CHINO controller to the GOT, a terminating resistor must be connected to the CHINO controller.

☞ User's Manual of the CHINO controller

11.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
 2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
 3. Set the following items.
 - [Manufacturer]: [CHINO]
 - [Controller Type]: [CHINO MODBUS device]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.
- 📖 Page 476 Communication detail settings
4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

📖 Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | None |
| Retry(Times) | 3 |
| Timeout Time(Sec) | 3 |
| Host Address | 1 |
| Delay Time(ms) | 5 |
| Format | 1 |

| Item | Description | Range |
|--------------------|--|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bit) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: None) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 3times) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 1sec) | 1 to 30sec |
| Host Address | Specify the host address (station No. of the GOT to which the controller is connected) in the connected network. (Default: 1) | 1 to 99 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 5ms) | 0 to 300ms |
| Format | Select the communication format. (Default: 1) Format 1: Accessible to LT230/300/400/830, DZ1000/2000, Not accessible to GT120 Format 2: Accessible to GT120 | 1/2 |

Point

- Format

When connecting to GT120, specify format 2.

- Delay Time

When connecting to the following models, set the send delay time to 30ms or more.

| Model name |
|----------------|
| DZ1000, DZ2000 |

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

11.5 Controller Side Setting



- CHINO controller

For details of CHINO controller, refer to the following manual.

User's Manual of the CHINO controller

- Converter

For details on communication settings of the converter, refer to the following manual.

User's Manual for converter

| Model name | | Refer to |
|------------|----------------|--|
| Controller | LT230, LT300 | Page 477 Connecting to LT230, LT300 Series |
| | LT400, LT830 | Page 478 Connecting to LT400, LT830 Series |
| | DZ1000, DZ2000 | Page 478 Connecting to DZ1000, DZ2000 Series |
| | DB1000, DB2000 | Page 479 Connecting to DB1000, DB2000 Series |
| | GT120 | Page 479 Connecting to GT120 Series |
| | KP1000, KP2000 | Page 480 Connecting to KP1000, KP2000 |
| | AL3000, AH3000 | Page 480 Connecting to AL3000, AH3000 |
| | SE3000 | Page 481 Connecting to SE3000 |
| | JU | Page 482 Connecting to JU |
| | KE3000 | Page 483 Connecting to KE3000 |
| | LE5000 | Page 484 Connecting to LE5000 |
| Converter | SC8-10 | Page 485 Connecting to converter SC8-10 |

Connecting to LT230, LT300 Series

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting to Lock 4.

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|---|---|
| Protocol | rTU: MODBUS RTU |
| Function | Com: Upper communication |
| Station No.*1 | 1 to 99 |
| Transmission speed*2 | 9600bps, 19200bps |
| Character*2 (Bit length, Parity bit, Stop bit) | 5: 8bit, None, 1bit 6: 8bit, None, 2bit 7: 8bit, Even, 1bit 8: 8bit, Even, 2bit 9: 8bit, Odd, 1bit 10: 8bit, Odd, 2bit |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to LT400, LT830 Series

Key Lock setting

To write the Digital and the Analog parameters, set the following Key Lock setting

- LT400: Lock4
- LT830: Lock3

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|---|--|
| Protocol | rtU: MODBUS RTU |
| Function | Com: Upper communication |
| Station No.*1 | 1 to 99 |
| Transmission speed*2 | 9600bps, 19200bps |
| Character*2 (Bit length, Parity bit, Stop bit) | 8N1: 8bit, None, 1bit 8N2: 8bit, None, 2bit 8E1: 8bit, Even, 1bit 8E2: 8bit, Even, 2bit 8O1: 8bit, Odd, 1bit 8O2: 8bit, Odd, 2bit |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to DZ1000, DZ2000 Series

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting to Lock 2.

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|----------------------|--------------------------|
| Protocol | rtU: MODBUS RTU |
| Function | Com: Upper communication |
| Station No.*1 | 1 to 31 |
| Transmission speed*2 | 9600bps, 19200bps |
| Data bit | 8bits (fixed) |
| Stop bit | 1bit (fixed) |
| Parity bit | None (fixed) |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to DB1000, DB2000 Series

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|----------------------|--|
| Protocol | MODBUS (RTU) |
| Function | Com: Upper communication |
| Station No.*1 | 01 to 99 |
| Transmission speed*2 | 9600bps, 19200bps, 38400bps |
| Character | 7BIT/EVEN/STOP1 7BIT/EVEN/STOP2 7BIT/ODD/STOP1 7BIT/ODD/STOP2 8BIT/NON/STOP1 8BIT/NON/STOP2 8BIT/EVEN/STOP1 8BIT/EVEN/STOP2 8BIT/ODD/STOP1 8BIT/ODD/STOP2 |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to GT120 Series

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting to Lock 3.

Communication settings

Release the controller lock function in advance and set the following communication settings.

After completing the communication settings, set the Key Lock setting to Lock 3.

| Item | Set value |
|------------------------|--------------------------------------|
| Communication protocol | comr: MODBUS RTU |
| Station No.*1 | 1 to 95 |
| Transmission speed*2 | 96: 9600bps 192: 19200bps |
| Data bit | 8bits (fixed) |
| Stop bit*2 | 1bit, 2bits |
| Parity bit*2 | nonE: None EVEN: Even odd: Odd |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to KP1000, KP2000

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting.

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|---|--|
| Protocol | MODBUS (RTU) |
| Function | COM |
| Station No.*1 | 1 to 99 |
| Transmission speed*2 | 2400bps, 4800bps, 9600bps, 19200bps, 38400bps |
| Character*2 (Bit length, Parity bit, Stop bit) | 8BIT/NON/STOP1 8BIT/NON/STOP2 8BIT/EVEN/STOP1 8BIT/EVEN/STOP2 8BIT/ODD/STOP1 8BIT/ODD/STOP2 |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to AL3000, AH3000

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting.

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|---|--|
| Protocol | MODBUS |
| Transmission code | rtu |
| Communication type | RS232C, RS-422A, RS-485 |
| Station No.*1 | 1 to 31 |
| Transmission speed*2 | 2400bps, 4800bps, 9600bps, 19200bps |
| Character*2 (Bit length, Parity bit, Stop bit) | [8N1]: 8bit, None, 1bit [8N2]: 8bit, None, 2bit [8E1]: 8bit, Even, 1bit [8E2]: 8bit, Even, 2bit [8O1]: 8bit, Odd, 1bit [8O2]: 8bit, Odd, 2bit |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to SE3000

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting.

Communication settings

Make the communication settings using the engineering software package (PASS)

| Item | Set value |
|------------------------|-------------------|
| Protocol | MODBUS RTU |
| Station No.*1*3 | 1 to 31 |
| Transmission speed*2*3 | 9600bps, 19200bps |
| Data bit | 8bits (fixed) |
| Parity bit*2 | Even, Odd, Non |
| Stop bit*2 | 1bit, 2bits |
| Transmission code | Binary (fixed) |
| Error check | CRC-16 (fixed) |

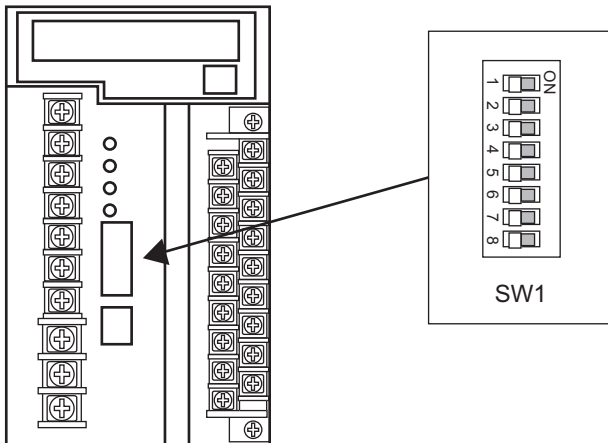
*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

*3 Station No. and Transmission speed can also be set by switch SW1.

Setting by Switch (SW1)

Station No. and Transmission speed can be set.



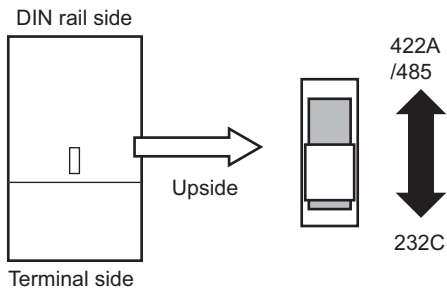
Station No.

| SW1-1 | SW1-2 | SW1-3 | SW1-4 | SW1-5 | Station No. |
|-------|-------|-------|-------|-------|-------------|
| OFF | OFF | OFF | OFF | OFF | 1 |
| ON | OFF | OFF | OFF | OFF | 1 |
| OFF | ON | OFF | OFF | OFF | 2 |
| ON | ON | OFF | OFF | OFF | 3 |
| : | | | | | |
| : | | | | | |
| ON | OFF | ON | ON | ON | 29 |
| OFF | ON | ON | ON | ON | 30 |
| ON | ON | ON | ON | ON | 31 |

■Transmission speed

| SW1-6 | SW1-7 | communication port | Transmission speed |
|-------|-------|------------------------|--------------------|
| OFF | OFF | Upper communication | 9600bps |
| OFF | ON | Upper communication | 19200bps |
| ON | OFF | ENG | - |
| ON | ON | User setting inhibited | |

Setting by Switch (SW2)



| SW2 | |
|----------------------------|---------------------------|
| Front side (Terminal side) | Rear side (DIN rail side) |
| RS232C | RS422A/485 |

Connecting to JU

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting.

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|---|--|
| Protocol | rtU |
| Station No.*1 | 1 to 99 |
| Transmission speed*2 | 9600bps, 19200bps |
| Character*2 (Bit length, Parity bit, Stop bit) | [8N1]: 8bit, None, 1bit [8N2]: 8bit, None, 2bit [8E1]: 8bit, Even, 1bit [8E2]: 8bit, Even, 2bit [8O1]: 8bit, Odd, 1bit [8O2]: 8bit, Odd, 2bit |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

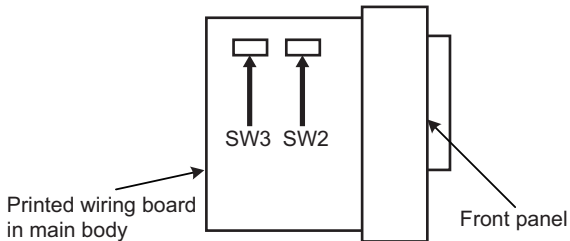
Connecting to KE3000

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting.

Communication settings

Make the communication settings by operating the switches SW2 and SW3 of the module.



Setting by SW2

| Item | Set value | SW2-2 | SW2-3 |
|--|---------------------------|-------|-------|
| Transmission code ^{*2} | MODBUS RTU | OFF | - |
| Transmission speed ^{*1} | 9600bps | - | OFF |
| | 19200bps | - | ON |
| Transmission character structure ^{*2} | 8bits, None, 1bit (fixed) | - | - |

*1 Adjust the settings with GOT settings.

*2 When the transmission code is MODBUS RTU, the setting of the transmission character structure is fixed.

Setting by SW3

Set the station No. as follows.

| SW3-4 | SW3-5 | SW3-6 | SW3-7 | SW3-8 | Station No. ^{*1} |
|-------|-------|-------|-------|-------|---------------------------|
| OFF | OFF | OFF | OFF | OFF | 1 |
| ON | OFF | OFF | OFF | OFF | 1 |
| OFF | ON | OFF | OFF | OFF | 2 |
| ON | ON | OFF | OFF | OFF | 3 |
| : | | | | | |
| : | | | | | |
| ON | OFF | ON | ON | ON | 29 |
| OFF | ON | ON | ON | ON | 30 |
| ON | ON | ON | ON | ON | 31 |

*1 Avoid duplication of the station No. with any of the other units.

Connecting to LE5000

Key Lock setting

To write the Digital and the Analog parameters, set the Key Lock setting.

Communication settings

Set the communication settings with controller key operation.

| Item | Set value |
|---|--|
| RTU/ASCII | RTU |
| Station No.*1 | 1 to 99 |
| Transmission speed*2 | 9600bps, 19200bps |
| Character*2 (Bit length, Parity bit, Stop bit) | [8N1]: 8bit, None, 1bit [8N2]: 8bit, None, 2bit [8E1]: 8bit, Even, 1bit [8E2]: 8bit, Even, 2bit [8O1]: 8bit, Odd, 1bit [8O2]: 8bit, Odd, 2bit |

*1 Avoid duplication of the station No. with any of the other units.

*2 Adjust the settings with GOT settings.

Connecting to converter SC8-10

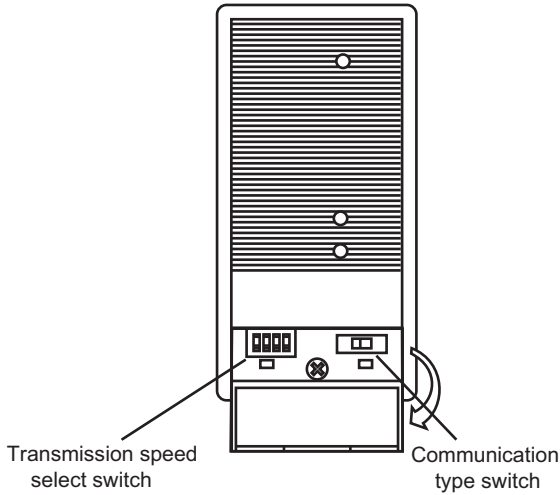
Communication settings

Make the communication settings using setting switches.

| Item | Set value |
|------------------------------------|-------------------|
| Transmission speed select switch*1 | 9600bps, 19200bps |
| Communication type switch | RS-485, RS-422 |

*1 Adjust the settings with GOT and controller settings.

Settings by switch



Transmission speed setting



| Setting item | Set value | Switch No. | | | |
|--------------------|-----------|------------|-----|-----|-----|
| | | 1 | 2 | 3 | 4 |
| Transmission speed | 9600bps | OFF | ON | OFF | OFF |
| | 19200bps | OFF | OFF | ON | OFF |

Communication type setting



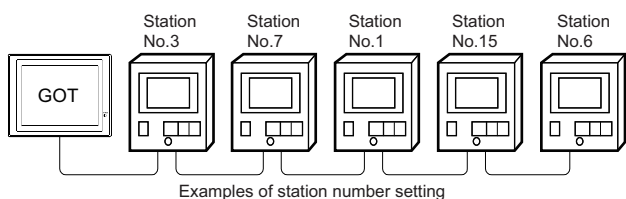
RS-485 ↔ RS-422A

| Setting item |
|---------------|
| RS-485/RS-422 |

Station number setting

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.



Direct specification

When setting the device, specify the station number of the controller of which data is to be changed.

| Model name | Specification range | Refer to |
|----------------------------|---------------------|--|
| LT230, LT300, LT400, LT830 | 1 to 99 | ☞ Page 477 Connecting to LT230, LT300 Series ☞ Page 478 Connecting to LT400, LT830 Series |
| DZ1000, DZ2000 | 1 to 31 | ☞ Page 478 Connecting to DZ1000, DZ2000 Series |
| DB1000, DB2000 | 1 to 99 | ☞ Page 479 Connecting to DB1000, DB2000 Series |
| GT120 | 1 to 95 | ☞ Page 479 Connecting to GT120 Series |
| KP1000, KP2000 | 1 to 99 | ☞ Page 480 Connecting to KP1000, KP2000 |
| AL3000, AH3000 | 1 to 31 | ☞ Page 480 Connecting to AL3000, AH3000 |
| SE3000 | 1 to 31 | ☞ Page 481 Connecting to SE3000 |
| JU | 1 to 99 | ☞ Page 482 Connecting to JU |
| KE3000 | 1 to 31 | ☞ Page 483 Connecting to KE3000 |
| LE5000 | 1 to 99 | ☞ Page 484 Connecting to LE5000 |

Indirect specification

When setting the device, indirectly specify the station number of the controller of which data is to be changed using the 16-bit GOT internal data register (GD10 to GD25).

When specifying the station No. from 100 to 115 on GT Designer3, the value of GD10 to GD25 compatible to the station No. specification will be the station No. of the controller.

| Specification station NO. | Compatible device | Setting range |
|---------------------------|-------------------|--|
| 100 | GD10 | 1 to 99: LT230, LT300, LT400, LT830, DB1000, DB2000, KP1000, KP2000, JU, LE5000 1 to 31: DZ1000, DZ2000, AL3000, AH3000, KE3000, SE3000 1 to 95: GT120 For the setting other than the above, error (dedicated device is out of range) will occur. |
| 101 | GD11 | |
| 102 | GD12 | |
| 103 | GD13 | |
| 104 | GD14 | |
| 105 | GD15 | |
| 106 | GD16 | |
| 107 | GD17 | |
| 108 | GD18 | |
| 109 | GD19 | |
| 110 | GD20 | |
| 111 | GD21 | |
| 112 | GD22 | |
| 113 | GD23 | |
| 114 | GD24 | |
| 115 | GD25 | |

All station specification

Target station differs depending on write-in operation or read-out operation.

- For write-in operation, all station will be a target.
- For read-out operation, only one station will be a target.
- All station specification is not available for KE3000. Do not use the all station specification for systems which include KE3000.

11.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.


 Page 671 CHINO equipment ([CHINO MODBUS device])

11.7 Precautions

Station number settings of temperature controller

In the system configuration, the controller with the station number set with the host address must be included.

For details of host address setting, refer to the following.

 Page 475 Setting communication interface (Communication settings)

GOT clock control

Since the controller does not have a clock function, the settings of [time adjusting] or [time broad cast] by GOT clock control will be disabled.

Disconnecting some of multiple connected equipment

The GOT can disconnect some of multiple connected equipment by setting GOT internal device. For example, the faulty station where a communication timeout error occurs can be disconnected from connected equipment.

For details of GOT internal device setting, refer to the following manual.





















 GT Designer3 (GOT2000) Screen Design Manual

12 TOSHIBA PLC

- Page 489 Connectable Model List
- Page 490 Serial Connection
- Page 500 Ethernet Connection
- Page 506 Settable Device Range

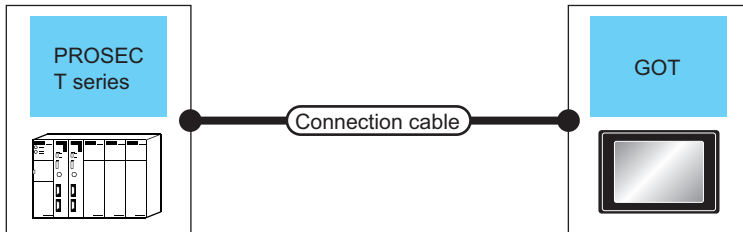
12.1 Connectable Model List

The following table shows the connectable models.









| Series | Model name | Clock | Communication Type | Connectable GOT | Refer to |
|---|-----------------|-------|--------------------|--|---|
| PROSECT Series | T2 (PU224) | ○ | RS-422 |     |  Page 490 Connecting to PROSECT series |
| | T3 | ○ | | | |
| | T3H | ○ | | | |
| | T2E | ○ | RS-232 | | |
| | T2N | ○ | RS-422 | | |
| PROSECV Series | model 2000(S2) | ○ | RS-422 |     |  Page 492 Connecting to PROSECV series |
| | model 2000(S2T) | ○ | | | |
| | model 2000(S2E) | ○ | | | |
| | model 3000 (S3) | ○ | | | |
| Unified Controller nv Series (Controller type1) | PU811 | ○ | Ethernet |     |  Page 500 Connecting to Unified Controller nv series |
| Unified Controller nv Series (Controller type1 light) | PUM11 | ○ | Ethernet |     |  Page 500 Connecting to Unified Controller nv series |
| | PUM12 | ○ | | | |
| | PUM14 | ○ | | | |

12.2 Serial Connection

Connecting to PROSEC T series

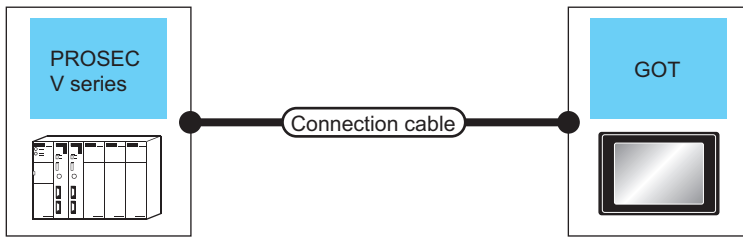


| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|-------------------------|--------------------|---|---------------|-------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *1 | Model | |
| T2 (PU224) T3 T3H | RS-422 | GT09-C30R40501-15P(3m) GT09-C100R40501-15P(10m) GT09-C200R40501-15P(20m) GT09-C300R40501-15P(30m) or RS422 connection diagram 1) | 1km | -(Built into GOT) | | 1 GOT for 1 PLC |
| | | | | GT15-RS4-9S | | |
| T2E | RS-232 | GT09-C30R40102-9P(3m) or RS232 connection diagram 1) | 15m | -(Built into GOT) | | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P | | |
| | RS-422 | GT09-C30R40502-6C(3m) GT09-C100R40502-6C(10m) GT09-C200R40502-6C(20m) GT09-C300R40502-6C(30m) or RS422 connection diagram 2) | 1km | -(Built into GOT) | | |
| | | | | GT15-RS4-9S | | |

| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|------------|--------------------|---|---------------|--------------------|--|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *1 | Model | |
| T2N | RS-232 | GT09-C30R20502-15P(3m) or  RS232 connection diagram 2) | 15m | - (Built into GOT) |   | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P |  | |
| | RS-422 | GT09-C30R40503-15P(3m) GT09-C100R40503-15P(10m) GT09-C200R40503-15P(20m) GT09-C300R40503-15P(30m) or  RS422 connection diagram 3) | 1km | - (Built into GOT) |   | |
| | | | | GT15-RS4-9S |  | |

*1 GT5-W, GT2505-V does not support the option device.

Connecting to PROSEC V series



| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|---|--------------------|---|---------------|--------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *1 | Model | |
| model 2000 (S2) model 2000 (S2T) model 2000 (S2E) | RS-422 | GT09-C30R40502-6C(3m) GT09-C100R40502-6C(10m) GT09-C200R40502-6C(20m) GT09-C300R40502-6C(30m) or RS422 connection diagram 2) | 1km | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | GT15-RS4-9S | | |
| model 3000 (S3) | RS-422 | GT09-C30R40501-15P(3m) GT09-C100R40501-15P(10m) GT09-C200R40501-15P(20m) GT09-C300R40501-15P(30m) or RS422 connection diagram 1) | 1km | - (Built into GOT) | | |
| | | | | GT15-RS4-9S | | |

*1 GT25-W, GT2505-V does not support the option device.

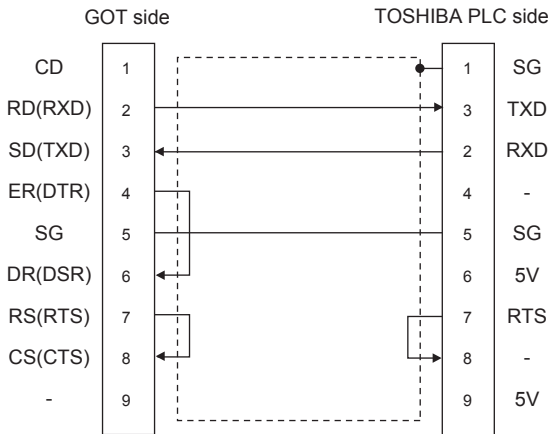
Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

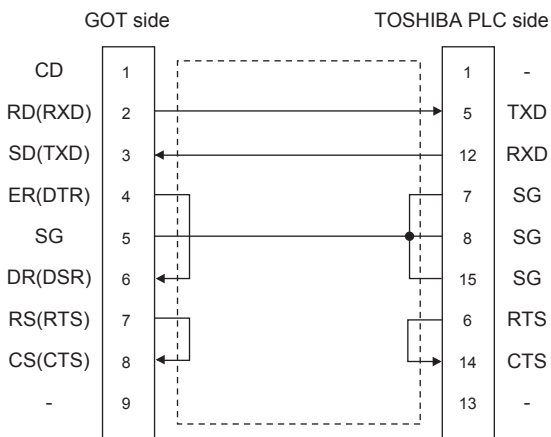
RS-232 cable

■ Connection diagram

- RS232 connection diagram 1)



- RS232 connection diagram 2)



■ Precautions when preparing a cable

- Cable length

The length of the RS-232 cable must be 15m or less.

- GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

- TOSHIBA PLC side connector

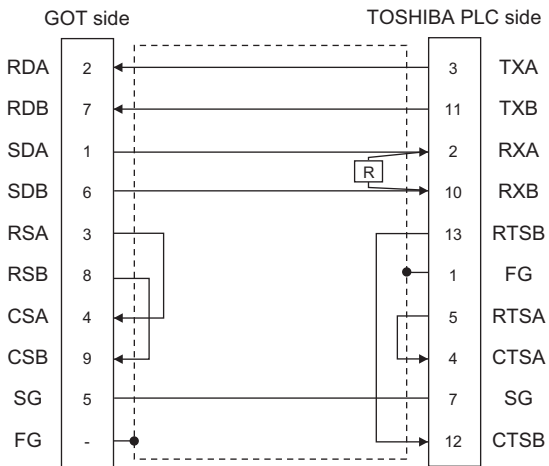
Use the connector compatible with the TOSHIBA PLC.

For details, refer to the TOSHIBA PLC user's manual.

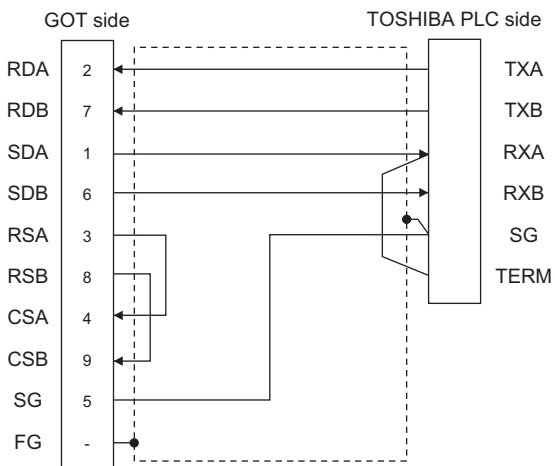
RS-422 cable

■ Connection diagram

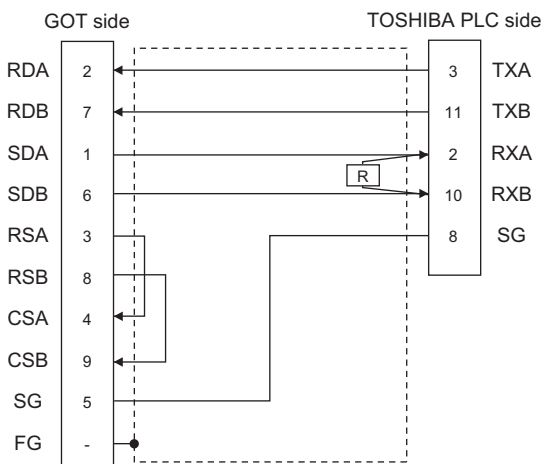
- RS422 connection diagram 1)



- RS422 connection diagram 2)



- RS422 connection diagram 3)



■Precautions when preparing a cable

- Cable length

The length of the RS-422 cable must be 1km or less.

- GOT side connector

For the GOT side connector, refer to the following.

 Page 58 GOT connector specifications

- TOSHIBA PLC side connector

Use the connector compatible with the TOSHIBA PLC.

For details, refer to the TOSHIBA PLC user's manual.

■Setting terminating resistors

- GOT side


1) For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Disable".

2) For GT2505-V

Set the terminating resistor selector to "330Ω".

For details of terminating resistor settings, refer to the following.

 Page 62 Terminating resistors of GOT

- TOSHIBA PLC side

When connecting an TOSHIBA PLC to a GOT, a terminating resistor must be set to the TOSHIBA PLC.

For the setting of the terminating resistor, refer to the following manual.

 TOSHIBA PLC user's Manual

T2 (PU224), T2N, T3, T3H, model 3000 (S3)

Connect the terminating resistor (1/2W-120Ω) across RXA and RXB.

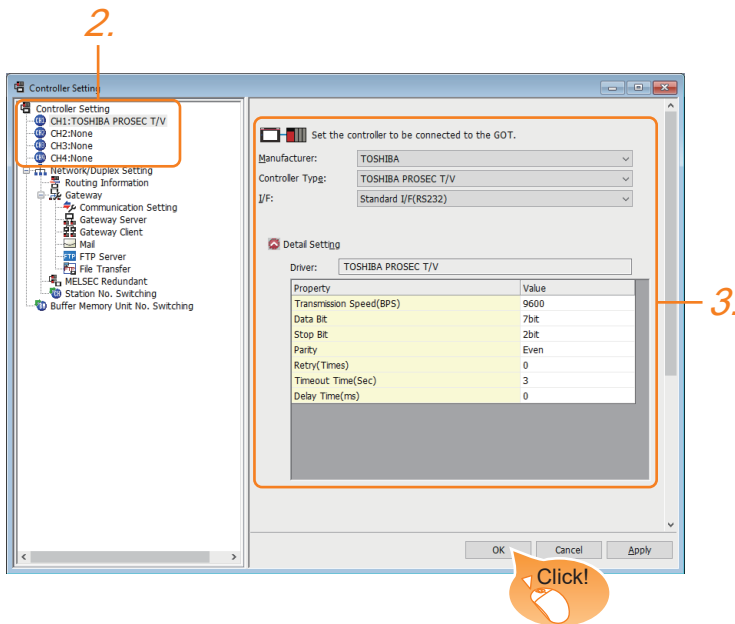
T2E, model 2000 (S2, S2T)

Short across the RXA and TERM terminals.

GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [TOSHIBA]
 - [Controller Type]: [TOSHIBA PROSEC T/V]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 497 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 7 bit |
| Stop Bit | 2 bit |
| Parity | Even |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|--------------------|---|---|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 7bits) | 7bit, 8bit |
| Stop Bit | Specify the stop bit length for communications. (Default: 2bit) | 1bit, 2bit |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: Even) | None, Even, Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300 (ms) |

12

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

PLC Side Setting



TOSHIBA PLC

For details of the TOSHIBA PLC, refer to the following manual.

TOSHIBA PLC user's Manual

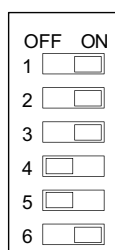
| Model name | | Refer to |
|------------|--|---|
| PLC CPU | T2 (PU224), T2E, T2N | Page 498 Connecting to T2 (PU224), T2E or T2N |
| | T3, T3H | Page 499 Connecting to T3 or T3H |
| | model 2000 (S2, S2T, S2E), model 3000 (S3) | Page 499 Connecting to model 2000 (S2, S2T, S2E), model 3000 (S3) |

Connecting to T2 (PU224), T2E or T2N

■Switch setting

Set the switches accordingly.

- Operation mode setting switch



| Switch No. | Settings | Setting details |
|------------|-------------|-----------------|
| 4 | OFF (fixed) | Computer link |
| 5 | OFF (fixed) | |

- DIP switch on module PCB (T2N only)

| Switch No. | Set value | |
|-------------------|---------------------------|-----------------------------|
| | For RS-232C communication | For RS-422 communication |
| DIP switch: No. 1 | ON (RS-232C) | OFF (RS-485 ^{*1}) |

*1 Can be used as RS-422.

■Transmission parameter setting

Enter the transmission parameters.

| Item | Set value |
|--------------------------------------|----------------------------|
| Transmission speed ^{*1*2*3} | 4800bps, 9600bps, 19200bps |
| Data bit | 7bit |
| Stop bit | 2bit |
| Parity bit | Even |
| Station No. | 1 |

*1 Indicates only the transmission speeds that can be set on the GOT side.

*2 Fixed to 9600bps for T2E only.

*3 The transmission speed setting must be consistent with that of the GOT side.

For the transmission speed setting on the GOT side, refer to the following.

Page 496 Setting communication interface (Communication settings)

Connecting to T3 or T3H


Enter the transmission parameters.

| Item | Set value |
|------------------------------------|----------------------------|
| Transmission speed ^{*1*2} | 4800bps, 9600bps, 19200bps |
| Data bit | 7bit |
| Stop bit | 2bit |
| Parity bit | Even |
| Station No. | 1 |

*1 Indicates only the transmission speeds that can be set on the GOT side.

*2 The transmission speed setting must be consistent with that of the GOT side.

For the transmission speed setting on the GOT side, refer to the following.

 Page 496 Setting communication interface (Communication settings)

Connecting to model 2000 (S2, S2T, S2E), model 3000 (S3)

Enter the transmission parameters.


| Item | Set value |
|------------------------------------|----------------------------|
| Transmission method | RS485 ^{*1} |
| RS485 | COM1 |
| Timeout time | 5sec |
| Transmission speed ^{*2*3} | 4800bps, 9600bps, 19200bps |
| Data bit | 7bit |
| Stop bit | 2bit |
| Parity bit | Even |
| Station No. | 1 |

*1 Can be used as RS-422.

*2 Indicates only the transmission speeds that can be set on the GOT side.

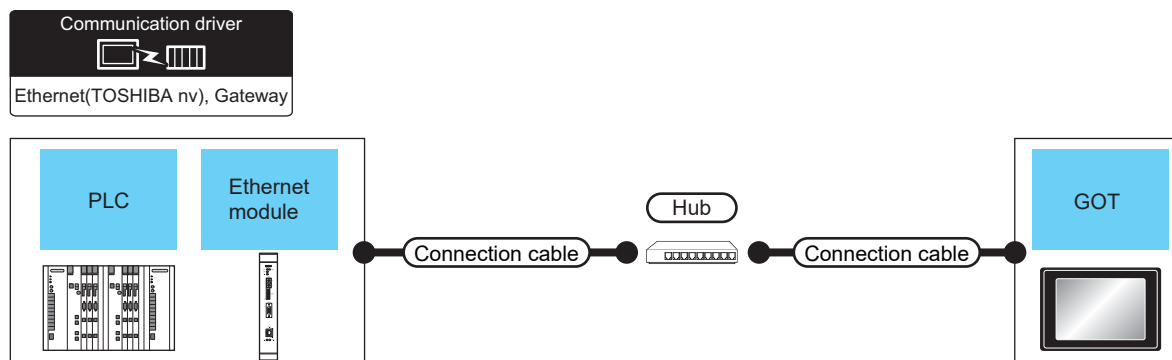
*3 The transmission speed setting must be consistent with that of the GOT side.

For the transmission speed setting on the GOT side, refer to the following.

 Page 496 Setting communication interface (Communication settings)

12.3 Ethernet Connection

Connecting to Unified Controller nv series



| PLC | | Connection cable | | GOT | | Number of connectable equipment | | | | |
|---|---|--|--------------------------------------|-----------------------------|---|---------------------------------|-------|-------|-------|---|
| Model name | Ethernet module ^{*3} | Cable model ^{*1} | Maximum segment length ^{*2} | Option device ^{*5} | Model | | | | | |
| PU811 | EN811 | Twisted pair cable ^{*1} • 10BASE-T Shielded twisted pair cable (STP) or unshielded twisted pair cable (UTP): Category 3, 4, and 5 • 100BASE-TX Shielded twisted pair cable (STP): Category 5 and 5e | 100m | - (Built in the GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | When PLC:GOT is N: 1 The number of PLCs for 1 GOT 32 or less When PLC:GOT is 1: N The number of GOTs for 1 PLC No limit number ^{*4} |
| | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | |
| GT25-J71E71-100 | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | |
| PUM11 ^{*6} PUM12 ^{*6} PUM14 ^{*6} | - | | | - (Built in the GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | |
| | | | | GT 27 | GT 25 | | | | | |
| GT 23 | GS 25 | | | | | | | | | |
| GT25-J71E71-100 | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | |
| GT 27 | GT 25 | | | | | | | | | |

*1 The destination connected with the twisted pair cable varies with the configuration of the applicable Ethernet network system. Connect to the Ethernet module, hub, transceiver or other system equipment corresponding to the applicable Ethernet network system. Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standard. To connect the target device and hub, use a cable according to the target controller configuration.

*2 A length between a hub and a node.
The maximum distance differs depending on the Ethernet device to be used.
The following shows the number of the connectable nodes when a repeater hub is used.
• 10BASE-T: Max. 4 nodes for a cascade connection (500m)
• 100BASE-TX: Max. 2 nodes for a cascade connection (205m)
When switching hubs are used, the cascade connection between the switching hubs has no logical limit for the number of cascades. For the limit, contact the switching hub manufacturer.

*3 Product manufactured by TOSHIBA Corporation. For details of the product, contact TOSHIBA Corporation.

*4 There is no restriction for the number of GOTs. However, if the number of GOTs increases, the communication becomes high-loaded, and it may affect the communication performance.

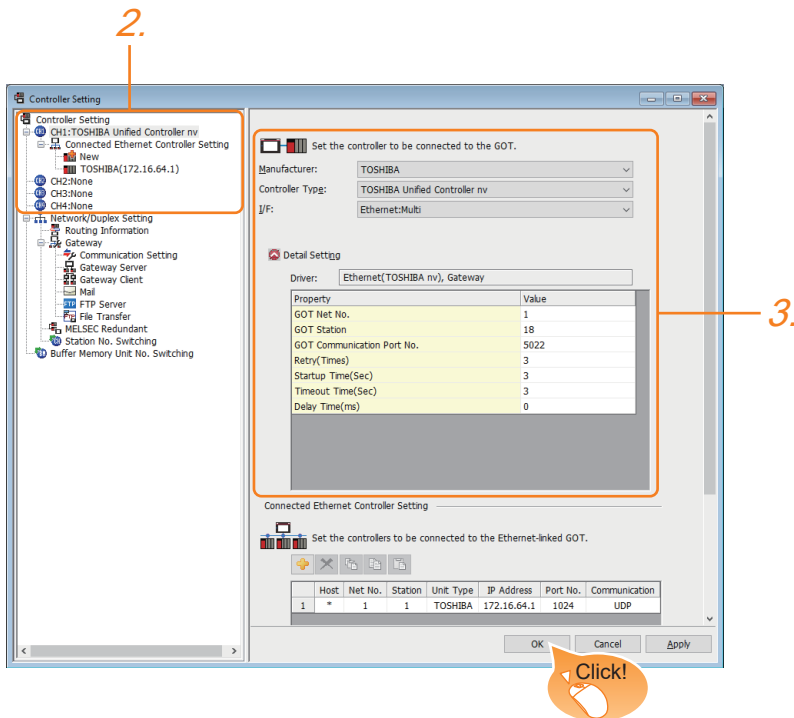
*5 GT25-W, GT2505-V does not support the option device.

*6 Use a CPU with firmware version V01.90 or later.
Use an nV-Tool with version V4.14.5 or later.

GOT side settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [TOSHIBA]
 - [Controller Type]: [TOSHIBA Unified Controller nv]
 - [I/F]: [Ethernet:Multi]

When using the Ethernet communication unit (GT25-J71E71-100), also select [Ethernet:Multi].

- [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 502 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting


Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|----------------------------|-------|
| GOT Net No. | 1 |
| GOT Station | 1 |
| GOT Communication Port No. | 5022 |
| Retry(Times) | 3 |
| Startup Time(Sec) | 3 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|----------------------------|---|--|
| GOT Net No. | Set the network No. of the GOT. (Default: 1) | 1 to 239 |
| GOT Station*1 | Set the station No. of the GOT. (Default: 1) | 1 to 254 |
| GOT Communication Port No. | Set the GOT port No. for the connection with the Ethernet module. (Default: 5022*2) | 1024 to 5010, 5014 to 65534 (Except for 5011 to 5013 and 49153 to 49170) |
| Retry | Set the number of retries to be performed when a communication timeout occurs. When receiving no response after retries, the communication times out. (Default: 3times) | 0 to 5times |
| Startup Time | Specify the time period from the GOT startup until GOT starts the communication with the PLC CPU. (Default: 3sec) | 3 to 255sec |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 90sec |
| Delay Time | Set the delay time for reducing the load of the network/destination PLC. (Default: 0ms) | 0 to 10000 (ms) |

*1 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].

 Page 503 Connected Ethernet Controller Setting

*2 When assigning the same driver to the multiple channels, in the communication drivers set as the second and following, the default value of [GOT Communication Port No.] becomes the earliest number in the vacant numbers of No. 6000 and later.

GOT Ethernet Setting

The GOT can be connected to a different network by configuring the following setting.

■GOT IP address setting

Set the following communication port setting.

- Standard port (When using GT25-W or GS25: Port 1)
- Extended port (When using GT25-W or GS25: Port 2)

■GOT Ethernet common setting

Set the following setting which is common to the standard port and the extension port, or port 1 and port 2.

- [Default Gateway]
- [Peripheral S/W Communication Port No.]
- [Transparent Port No.]

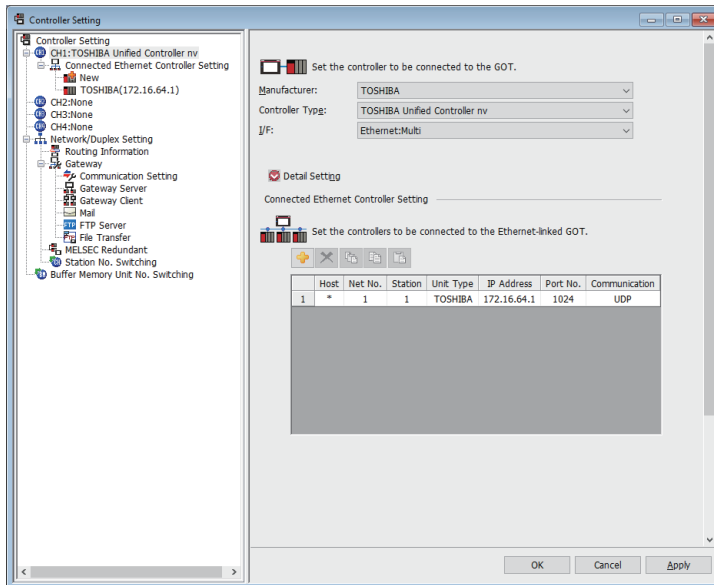
■IP filter setting

By configuring the IP filter setting, the access from the specific IP address can be permitted or shut off.

For the detailed settings, refer to the following manual.

 Page 44 GOT Ethernet Setting

Connected Ethernet Controller Setting



12

| Item | Description | Set value |
|----------------------|---|---------------------|
| Host | The host is displayed. It refers to a station that can be connected without setting a station number. (The host is indicated with an asterisk (*).) | - |
| Net No. | Set the network No. of the connected Ethernet module. (Default: 1) | 1 to 239 |
| Station*1 | Set the station No. of the connected Ethernet module. (Default: 1) | 1 to 254 |
| Unit Type | TOSHIBA (fixed) | TOSHIBA (fixed) |
| IP Address | Set the IP address of the connected Ethernet module. (Default: 172.16.64.1) | PLC side IP address |
| Port No. | Set the port No. of the connected Ethernet module. (Default: 1024) | 1024 to 65534 |
| Communication format | UDP (fixed) | UDP (fixed) |

*1 Set different values for [GOT Station] of [Detail Setting] and [Station] of [Connected Ethernet Controller Setting].

Page 502 Communication detail settings

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication setting] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

PLC side setting

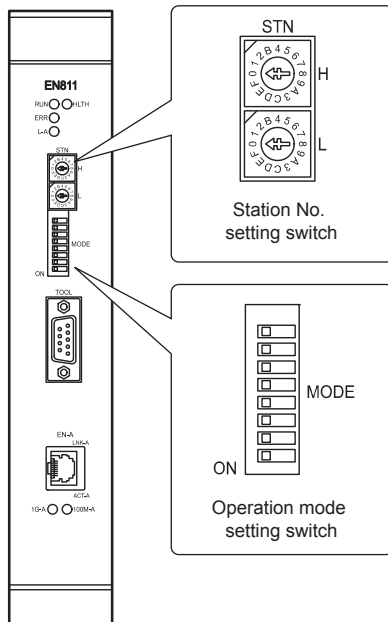


TOSHIBA PLC

For details of TOSHIBA PLCs, refer to the following manual.

TOSHIBA PLC user's Manual

Setting of EN811



■ Station No. setting switch

The station No. setting switches are hexadecimal rotary switches that determine the station No. on the Ethernet network.

Set the station address (1 to 254) that has been assigned upon system configuration in a HEX code.

Assign an address with a different value to each of the nodes in the system.

| Switch name | Setting details | Setting range |
|-------------|-------------------------------|-----------------|
| STN-H | Upper address : 0 to F (Hex.) | 01 to FE (Hex.) |
| STN-L | Lower address : 0 to F (Hex.) | |

■ Operation mode setting switch

- Operation mode

| Switch No. | Settings | | |
|----------------|----------|-----------------|-----|
| 1 | OFF | ON | OFF |
| 2 | OFF | OFF | ON |
| 3 | OFF | OFF | OFF |
| Operation mode | Normal | For maintenance | |

| Switch No. | Settings |
|------------|------------|
| 4 | Not in use |
| 5 | |

- IP address type

| Switch No. | Settings | | | |
|----------------|-------------------------|----------|-------------------------|--------------|
| 6 | OFF | OFF | OFF | ON |
| 7 | OFF | ON | OFF | ON |
| 8 | OFF | OFF | ON | ON |
| Operation mode | Class B 172.16.64.XX | Reserved | Class C 192.168.0.XX | Tool setting |

- Class B 172.16.64.XX

XX indicates the value of the station No. setting switches.

Subnet mask : 255.255.192.0

- Class B 192.168.0.XX

XX indicates the value of the station No. setting switches.

Subnet mask : 255.255.255.0

- Tool setting

It can be set freely from the engineering tool, and the value has precedence over the value of the station No. setting switches.

Setting of PUM11, PUM12, and PUM14

Configure the communication setting of the PLC from the engineering tool nV-Tool V4.14.5 or later.

Set [Computer Link Write Mode] to [Asynchronization].

Precautions

Delay of device communication

Note that if a non-existent station, or a station which power is turned OFF is monitored, the communication of normal stations is also delayed.

Redundant system

When configuring a redundant system, the "Multicast address setting" for the configured PLC pair (System A: Primary, System B: Secondary) is required.

12.4 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.















- ☞ Page 674 TOSHIBA equipment ([TOSHIBA PROSEC T/V])
- ☞ Page 679 TOSHIBA equipment ([TOSHIBA Unified Controller nv])

13 SHIBAURA MACHINE PLC

- Page 507 Connectable Model List
- Page 508 System Configuration
- Page 510 Connection Diagram
- Page 516 GOT Side Settings
- Page 518 PLC Side Setting
- Page 519 Settable Device Range

13.1 Connectable Model List

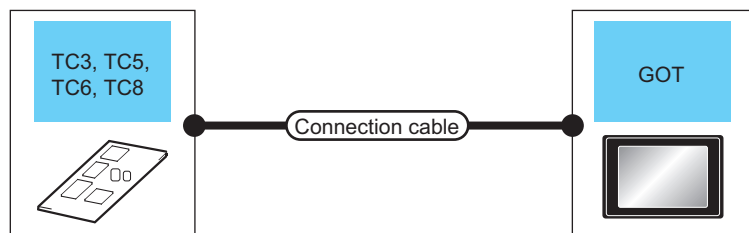
The following table shows the connectable models.

| Series | Model name | Clock | Communication Type | Connectable GOT | Refer to |
|------------------|------------|-------|--------------------|--|---|
| TCmini Series | TC3-01 | ○ | RS-232 |       *1 |  Page 508 Connecting to TC3, TC5, TC6, TC8 |
| | TC3-02 | ○ | | | |
| | TC6-00 | ○ | | | |
| | TC8-00 | ○ | | | |
| | TC5-02 | × | RS-485 | | |
| | TC5-03 | × | | | |
| Robot controller | TS2000 | × | RS-232 |       |  Page 509 Connecting to TS2000, TS2100 |
| | TS2100 | × | | | |

*1 For GS21, only GS21-W-N supports the RS-485 connection.

13.2 System Configuration

Connecting to TC3, TC5, TC6, TC8



| PLC | | Connection cable | | GOT | | Number of connectable equipment |
|-------------|--------------------|--|---------------|--|--------------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*3*4} | Model | |
| TC3,TC6,TC8 | RS-232 | Page 510 RS232 connection diagram 1) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P | | |
| | | | | GT10-C02H-6PT9P ^{*1} | | |
| | | Page 510 RS232 connection diagram 3) | 15m | - (Built into GOT) | | |
| TC5 | RS-485 | Page 512 RS485 connection diagram 1) | 400m | - (Built into GOT) | | |
| | | | | - (Built into GOT) | | |
| | | | | FA-LTBGT2R4CBL05(0.5m) ^{*2} FA-LTBGT2R4CBL10(1m) ^{*2} FA-LTBGT2R4CBL20(2m) ^{*2} | | |

*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

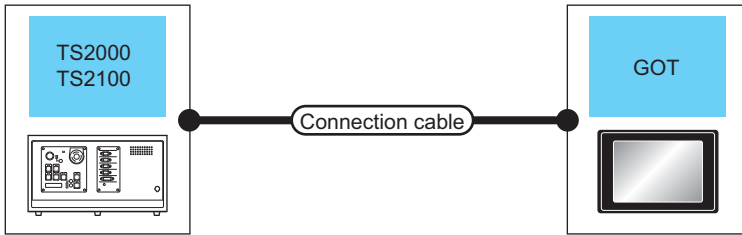
*2 Product manufactured by MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED. For details of the product, contact MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED.

*3 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL□□.

*4 GT2505-V does not support the option device.

*5 Only available to GS21-W-N for GS21.

Connecting to TS2000, TS2100



| Robot controller | | Connection cable | | GOT | | Number of connectable equipment |
|--------------------------------|--------------------|--|---------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device ^{*2} | Model | |
| TS2000 TS2100 (POD port) | RS-232 | <small>(User preparing)</small> Page 510 RS232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 robot controller |
| | | | | GT15-RS2-9P | | |
| | | | | GT10-C02H-6PT9P ^{*1} | | |
| | | <small>(User preparing)</small> Page 511 RS232 connection diagram 4) | 15m | - (Built into GOT) | | |

*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*2 GT25-W, GT2505-V does not support the option device.

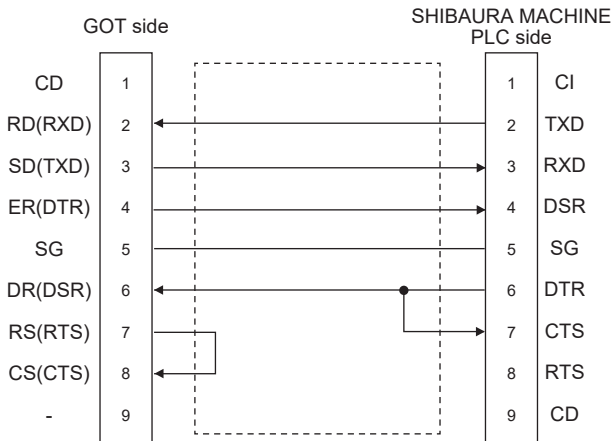
13.3 Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

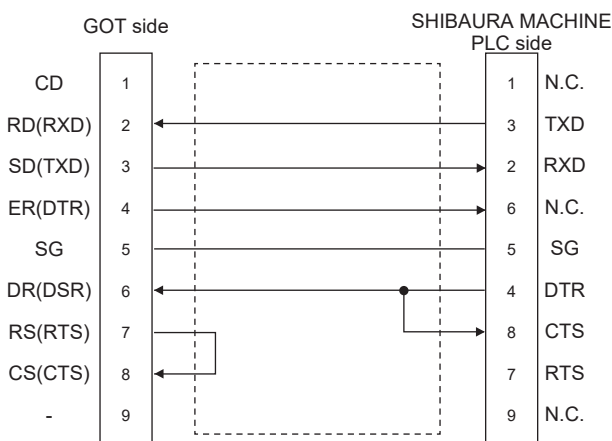
RS-232 cable

Connection diagram

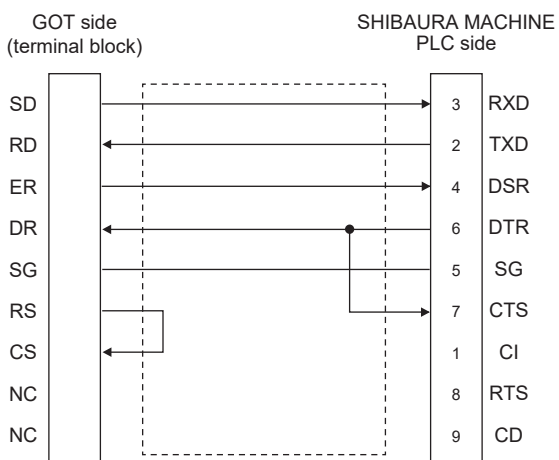
■RS232 connection diagram 1)



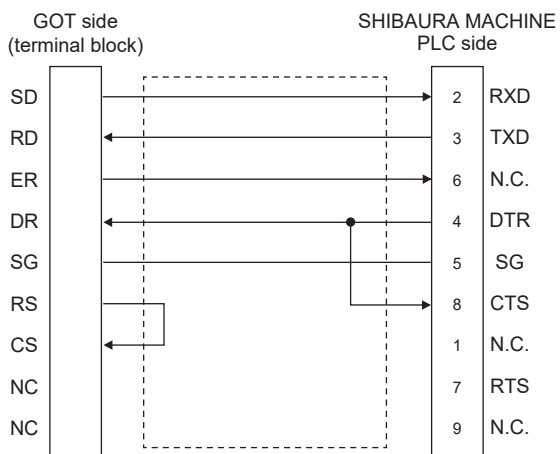
■RS232 connection diagram 2)



■RS232 connection diagram 3)



■RS232 connection diagram 4)



Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 15m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■Connector for the SHIBAURA MACHINE PLC

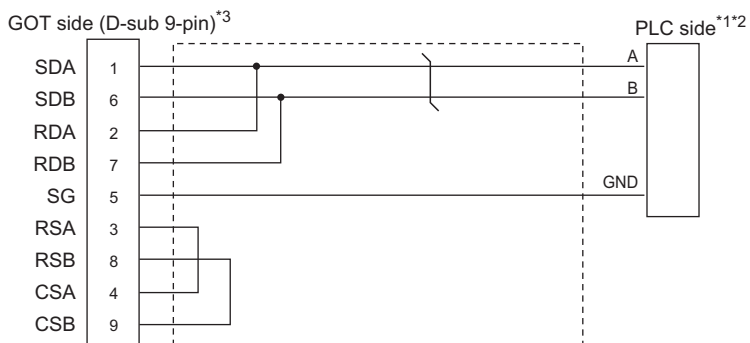
Use a connector applicable to the SHIBAURA MACHINE PLC.

For the details, refer to the manual of the SHIBAURA MACHINE PLC.

RS-485 cable

Connection diagram

■RS485 connection diagram 1)



*1 Pin No. of PLC side differs depending on the model. Refer to the following table.

| Signal name | Model of PLC | | | |
|-------------|--------------|---------|---------|---------|
| | TC5-02 | | TC5-03 | |
| | CN24A | CN24B | CN14 | CN18 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| A | 1 | 1 | 3 | 3 |
| B | 2 | 2 | 4 | 4 |
| GND | 3 | 3 | 5 | 5 |

*2 For the PLC side terminating resistor, refer to the following.

PLC user's Manual to be used

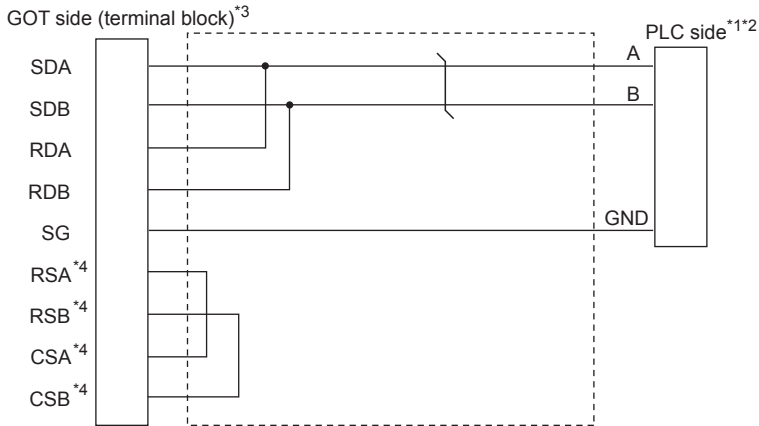
*3 Set the terminating resistor of GOT side which will be a terminal.

For GT27, GT25 except GT2505-V, GT23, and GS25, set the terminating resistor to "Enable".

For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 110 Ω.

Page 62 Terminating resistors of GOT

■RS485 connection diagram 2)



*1 Pin No. of PLC side differs depending on the model. Refer to the following table.

| Signal name | Model of PLC | | | |
|-------------|--------------|---------|---------|---------|
| | TC5-02 | | TC5-03 | |
| | CN24A | CN24B | CN14 | CN18 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| A | 1 | 1 | 3 | 3 |
| B | 2 | 2 | 4 | 4 |
| GND | 3 | 3 | 5 | 5 |

*2 For the PLC side terminating resistor, refer to the following.

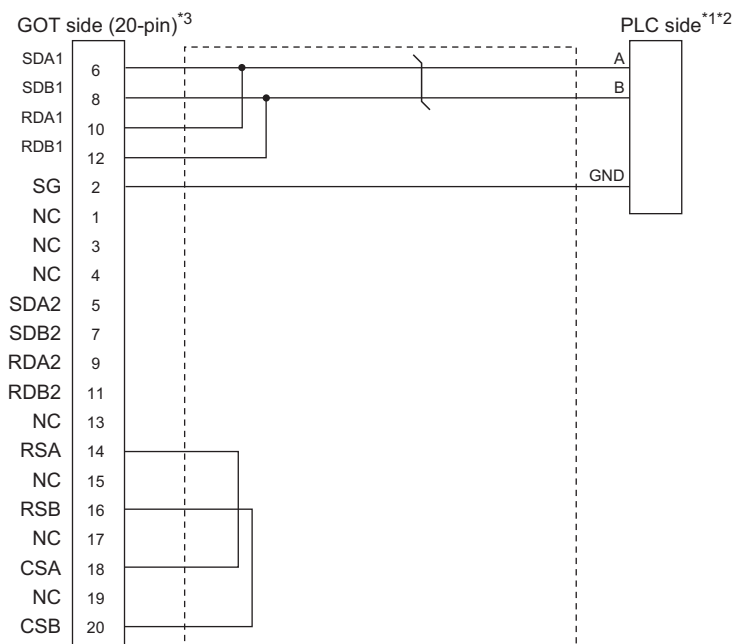
📖 PLC user's Manual to be used

*3 Set the terminating resistor of GOT side, which will be a terminal, to "110Ω".

📖 Page 62 Terminating resistors of GOT

*4 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD.

■RS485 connection diagram 3)



*1 Pin No. of PLC side differs depending on the model. Refer to the following table.

| Signal name | Model of PLC | | | |
|-------------|--------------|---------|---------|---------|
| | TC5-02 | | TC5-03 | |
| | CN24A | CN24B | CN14 | CN18 |
| | Pin No. | Pin No. | Pin No. | Pin No. |
| A | 1 | 1 | 3 | 3 |
| B | 2 | 2 | 4 | 4 |
| GND | 3 | 3 | 5 | 5 |

*2 For the PLC side terminating resistor, refer to the following.

📖 PLC user's Manual to be used

*3 Set the terminating resistor of GOT side, which will be a terminal, to "110Ω".

📖 Page 62 Terminating resistors of GOT

Precautions when preparing a cable

■Cable length

The length of the RS-485 cable must be 400m or less.

■GOT side connector

For the GOT side connector, refer to the following.

 Page 58 GOT connector specifications

■PLC side connector

Use the connector compatible with the PLC side.

For details, refer to the PLC user's Manual to be used.

Connecting terminating resistors

■GOT side

When connecting a PLC to the GOT, a terminating resistor must be connected to the GOT.


- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor using the terminating resistor setting switch.

- For GT2505-V, GT21

Set the terminating resistor using the terminating resistor selector.

For the procedure to set the terminating resistor, refer to the following.

 Page 62 Terminating resistors of GOT

■PLC side

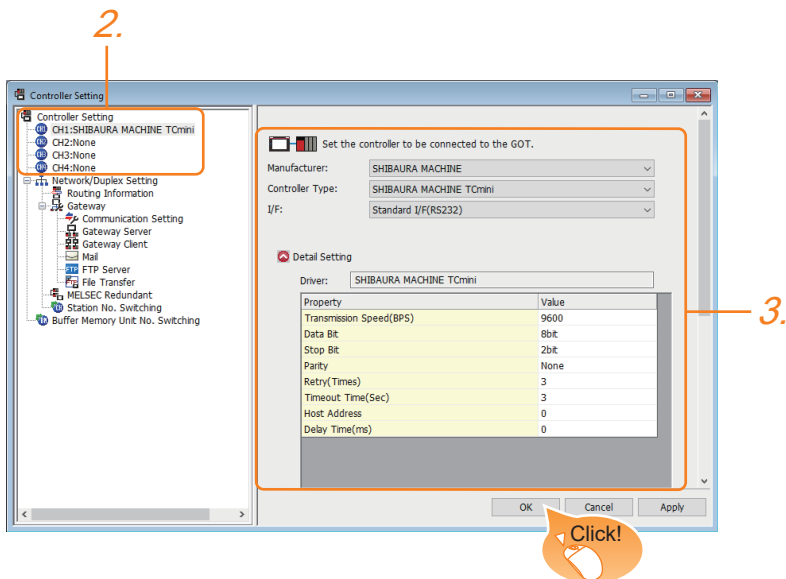
When connecting a PLC to the GOT, a terminating resistor must be connected to the PLC.

For details, refer to the PLC user's Manual to be used.

13.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [SHIBAURA MACHINE]
 - [Controller Type]: [SHIBAURA MACHINE TCmini]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.
4. When you have completed the settings, click the [OK] button.

📖 Page 517 Communication detail settings

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

📖 Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8 bit |
| Stop Bit | 2 bit |
| Parity | None |
| Retry(Times) | 3 |
| Timeout Time(Sec) | 3 |
| Host Address | 0 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|--------------------|---|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bit) | 7bits/8bits |
| Stop Bit | Specify the stop bit length for communications. (Default: 2bits) | 1bit/2bits |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: None) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default: 3times) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address | Specify the host address (station No. of the GOT to which the PLC is connected) in the connected network. (Default: 0) | 0 to 63 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300 (ms) |

13

Point


- Delay Time

When connecting to the PLC and RS-485, set the delay time to 1ms or more.

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

13.5 PLC Side Setting



SHIBAURA MACHINE PLC

For details on the SHIBAURA MACHINE PLC, refer to the following manual.

Manual of the SHIBAURA MACHINE PLC

| Model name | | Refer to |
|------------------|----------------|--|
| PLC CPU | TC3, TC8 | Page 518 Connecting to TC3, TC8 series |
| | TC5 | Page 518 Connecting to TC5 series |
| | TC6 | Page 518 Connecting to TC6 series |
| Robot controller | TS2000, TS2100 | Page 518 Connecting to TS2000, TS2100 |

Connecting to TC3, TC8 series

No communication settings.

Communication is available using default value of the PLC.

Connecting to TC5 series

The setting of transmission speed is changeable.

Set the following Generic register 1(D) using engineering tool.

The communication may not work properly if the settings are made using the GOT.

| Generic register | Description | Set value |
|------------------|----------------------|---------------------------------------|
| D37F | Mode setting | 3: Host communication connection mode |
| D37E | Transmission speed*1 | 0:9600bps1:19200bps2:38400bps |
| - | Data bit | 8bits (fixed) |
| - | Parity bit | None (fixed) |
| - | Stop bit | 2bits (fixed) |

*1 Adjust the settings with GOT settings.

For the transmission speed setting on the GOT side, refer to the following.

Page 516 Setting communication interface (Communication settings)

Connecting to TC6 series

The setting of transmission speed is changeable.

Set the following Special AUX Relay(A) using engineering tool.

The communication may not work properly if the settings are made using the GOT.

| Transmission speed*1 | Special AUX Relay | | |
|----------------------|-------------------|------|------|
| | A158 | A159 | A15A |
| 9600bps | OFF | OFF | OFF |
| 19200bps | ON | OFF | OFF |
| 38400bps | - | ON | OFF |
| 57600bps | - | OFF | ON |
| 115200bps | - | ON | ON |

*1 The transmission speed setting must be consistent with that of the GOT side.

For the transmission speed setting on the GOT side, refer to the following.

Page 516 Setting communication interface (Communication settings)

Connecting to TS2000, TS2100

No communication settings.

Communication is available using the default value of the robot controller.

13.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 683 SHIBAURA MACHINE equipment ([SHIBAURA MACHINE TCmini])




MEMO

14 PANASONIC SERVO AMPLIFIER

- Page 521 Connectable Model List
- Page 522 System Configuration
- Page 524 Connection Diagram
- Page 530 GOT Side Settings
- Page 532 Servo Amplifier Side Setting
- Page 534 Settable Device Range
- Page 534 Precautions

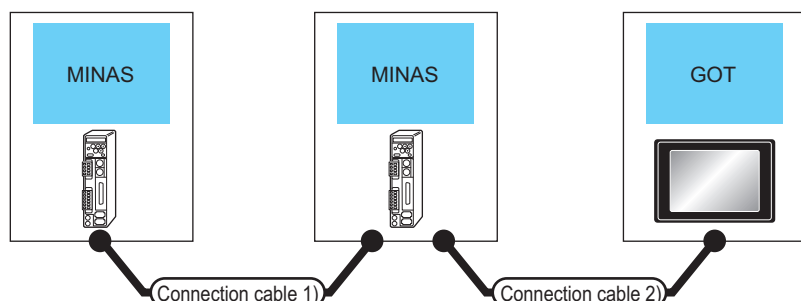
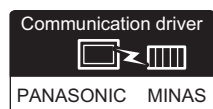
14.1 Connectable Model List

The following table shows the connectable models.

| Model name | Clock | Communication Type | Connectable GOT | Refer to |
|------------|-------|--------------------|---|--|
| MINAS A4 | × | RS-232 |  |  Page 522 Connecting to MINAS A4, MINAS A4F, MINAS A4L series |
| MINAS A4F | × | RS-485 | | |
| MINAS A4L | × | | |  Page 523 Connecting to MINAS A5 series |
| MINAS A5 | | | | |

14.2 System Configuration

Connecting to MINAS A4, MINAS A4F, MINAS A4L series



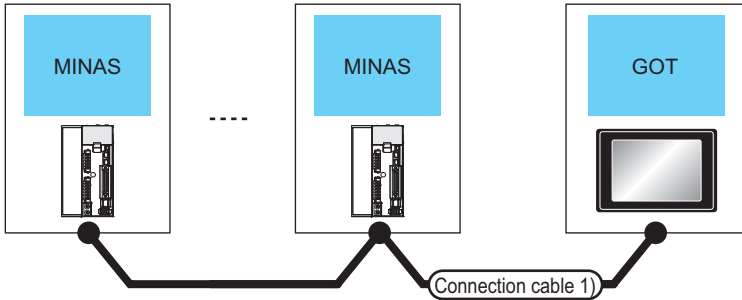
| Servo amplifier | | Connection cable 1) | Servo amplifier | | Connection cable 2) | | GOT | | Max. total distance | Number of connectable equipment |
|--|--------------------|--|------------------------------------|--------------------|--|---------------|--------------------|--|------------------------------------|---------------------------------|
| Model name | Communication Type | Cable model*1 | Model name | Communication Type | Cable model | Max. distance | Option device*2*3 | Model | | |
| MINAS A4 MINAS A4F MINAS A4L | RS-485 | DVOP1970(0.2m) DVOP1971(0.5m) DVOP1972(1m) | MINAS A4 MINAS A4F MINAS A4L | RS-232 | DVOP1960*1 or Page 524 RS-232 connection diagram 1) | 2m | - (Built into GOT) | | 17m | 16 servo amplifiers for 1 GOT |
| | | | | | | | GT15-RS2-9P | | | |
| | | | | | | | RS-485 | DVOP1970(0.2m) DVOP1971(0.5m) DVOP1972(1m) | MINAS A4 MINAS A4F MINAS A4L | RS-485 |
| FA-LTBGT2R4CBL05 (0.5m) FA-LTBGT2R4CBL10 (1m) FA-LTBGT2R4CBL20 (2m) | | | | | | | | | | |
| | - (Built into GOT) | | | | | | | | | |
| GT15-RS4-9S | | | | | | | | | | |

*1 The link unit is a product manufactured by PANASONIC Corporation. For details of this product, contact PANASONIC Corporation.

*2 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL□□.

*3 GT2505-V does not support the option device.

Connecting to MINAS A5 series



| Servo amplifier | | Connection cable 1) | | GOT | | Max. total distance | Number of connectable equipment | | | | |
|-----------------|--|---|---|---|---|---------------------|---------------------------------|-------|-------------------------------|-------|-------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | Max. distance | Option device *4*5 | Model | | | | | | |
| MINAS A5 | <ul style="list-style-type: none"> Between MINAS and GOT:RS-232 Between MINAS and MINAS:RS-485 | <small>(User preparing)</small> Page 529 RS-232/485 connection diagram 1) | *2 | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | 33m | 32 servo amplifiers for 1 GOT |
| | | | | GT 27 | GT 25 | | | | | | |
| | GT 23 | GS 25 | | | | | | | | | |
| | GT15-RS2-9P | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | | | |
| | GT 27 | GT 25 | | | | | | | | | |
| | RS-485 | <small>(User preparing)</small> Page 527 RS-485 connection diagram 6) | *3 | GT15-RS4-TE | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | 32m | 31 servo amplifiers for 1 GOT | | |
| GT 27 | GT 25 | | | | | | | | | | |
| | <small>(User preparing)</small> Page 528 RS-485 connection diagram 7) (For GT16) | *3 | FA-LTBGT2R4CBL05 (0.5m) FA-LTBGT2R4CBL10 (1m) FA-LTBGT2R4CBL20 (2m) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | | | GS 25 | |
| GT 27 | GT 25 | | | | | | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| | <small>(User preparing)</small> Page 528 RS-485 connection diagram 8) | *3 | - (Built into GOT) | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> <tr><td>GT 23</td><td>GS 25</td></tr> </table> | GT 27 | GT 25 | GT 23 | GS 25 | | | |
| GT 27 | GT 25 | | | | | | | | | | |
| GT 23 | GS 25 | | | | | | | | | | |
| | | | GT15-RS4-9S | <table border="1"> <tr><td>GT 27</td><td>GT 25</td></tr> </table> | GT 27 | GT 25 | | | | | |
| GT 27 | GT 25 | | | | | | | | | | |

*1 Product manufactured by Panasonic Corporation. For details of this product, contact Panasonic Corporation.

*2 The following shows the maximum distance.

- Between MINAS and GOT: 2m
- Between MINAS and MINAS: 1m

*3 The following shows the maximum distance.

- Between MINAS and GOT: 1m
- Between MINAS and MINAS: 1m

*4 GT25-W is not compatible to the option devices other than FA-LTBGT2R4CBL□□.

*5 GT2505-V does not support the option device.

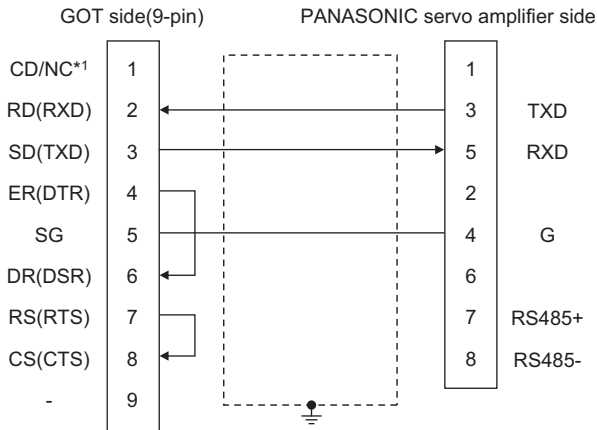
14.3 Connection Diagram

The following diagram shows the connection between the GOT and the Servo amplifier.

RS-232 cable

Connection diagram

■RS-232 connection diagram 1)



*1 GT27: CD, GT23:NC

Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 2m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■PANASONIC servo amplifier side connector

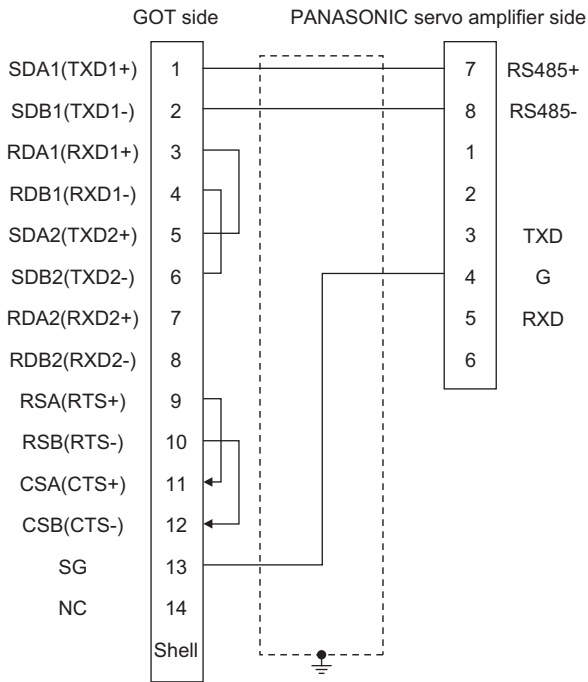
Use the connector compatible with the PANASONIC servo amplifier.

For details, refer to the user's manual of the PANASONIC servo amplifier.

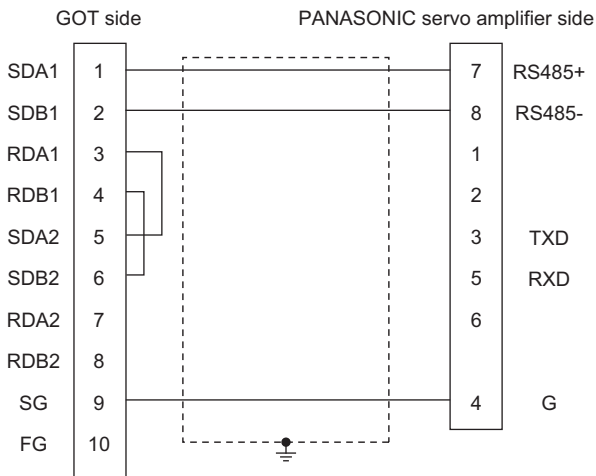
RS-485 cable

Connection diagram

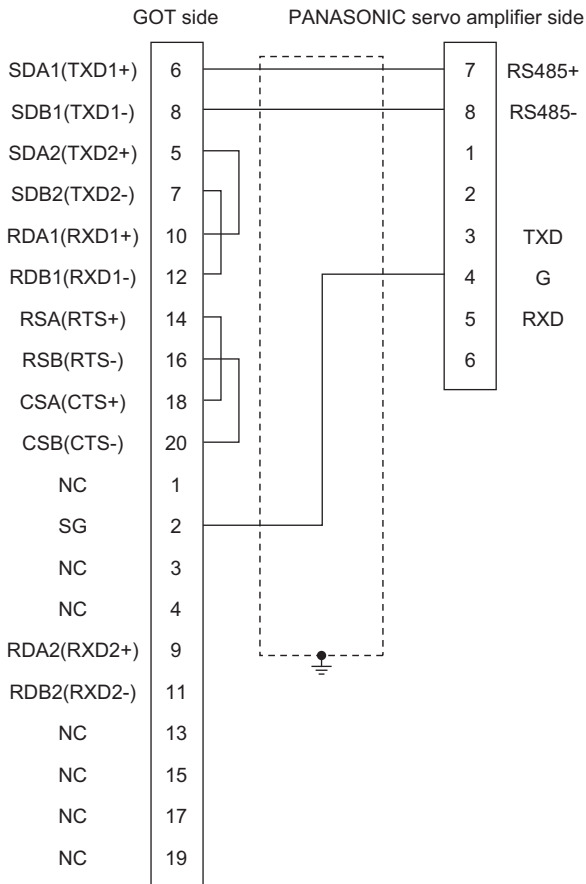
■RS-485 connection diagram 1)



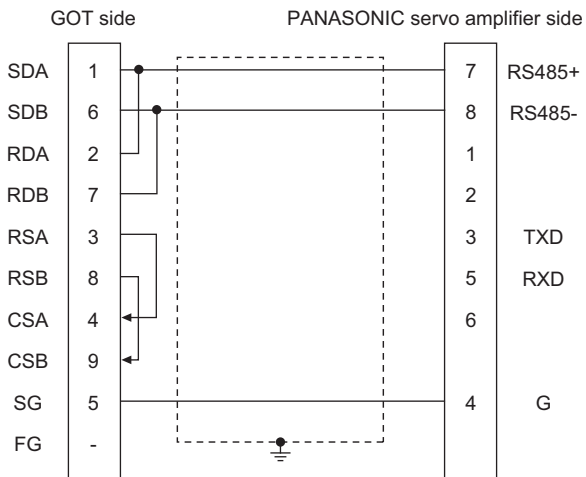
■RS-485 connection diagram 2)



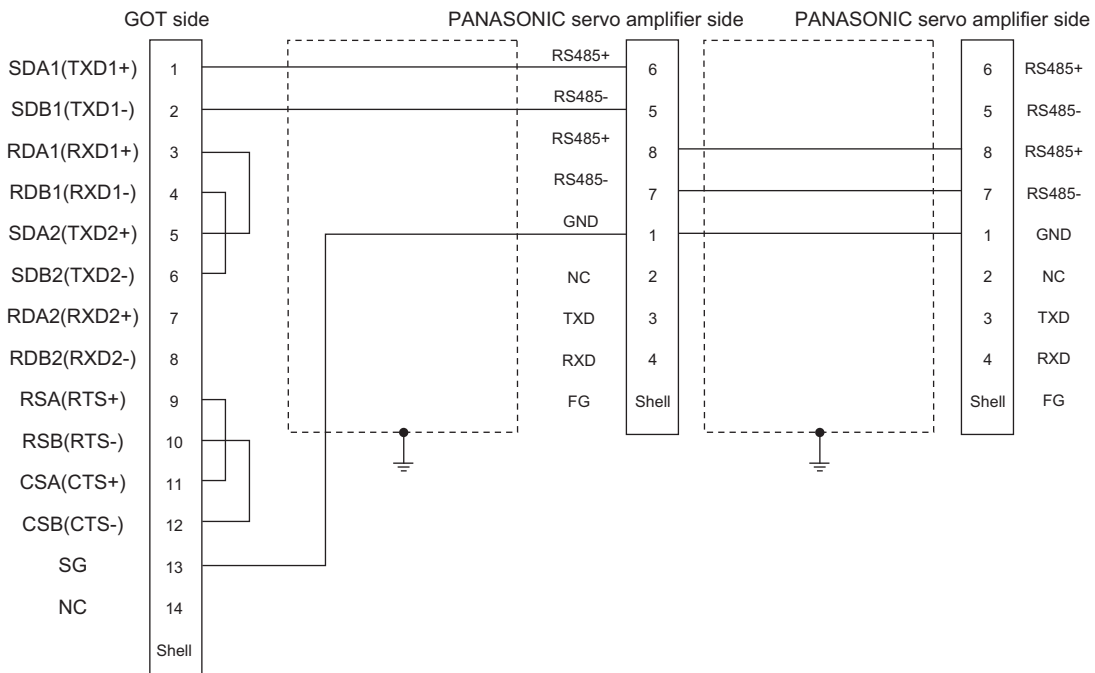
■RS-422 connection diagram 3)



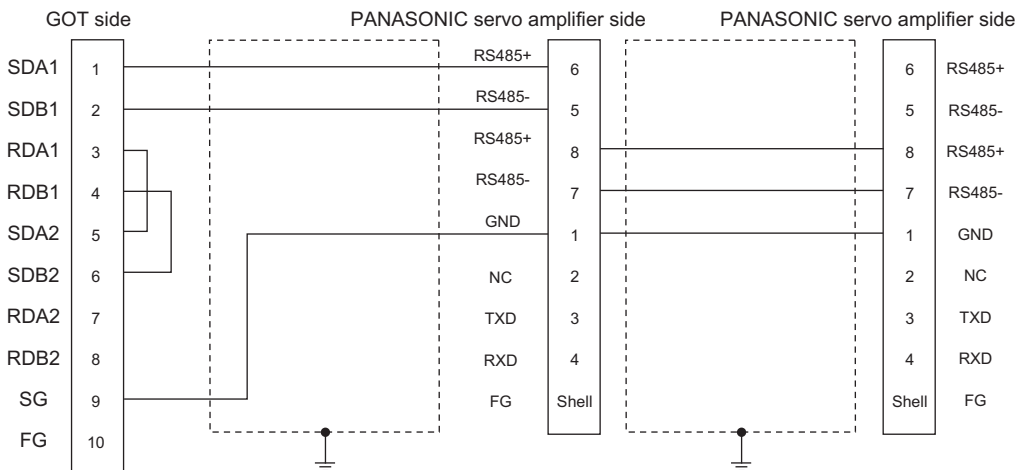
■RS-422 connection diagram 4)



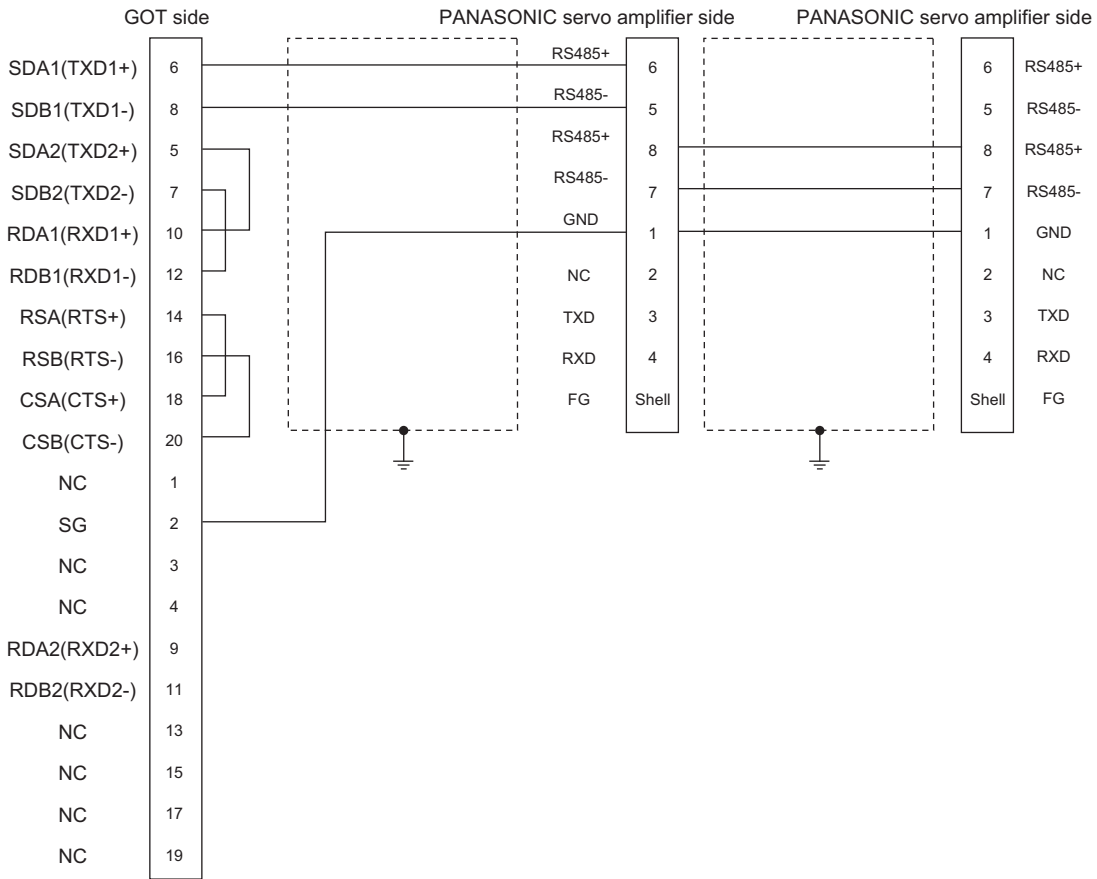
■RS-485 connection diagram 5) (For GT16)



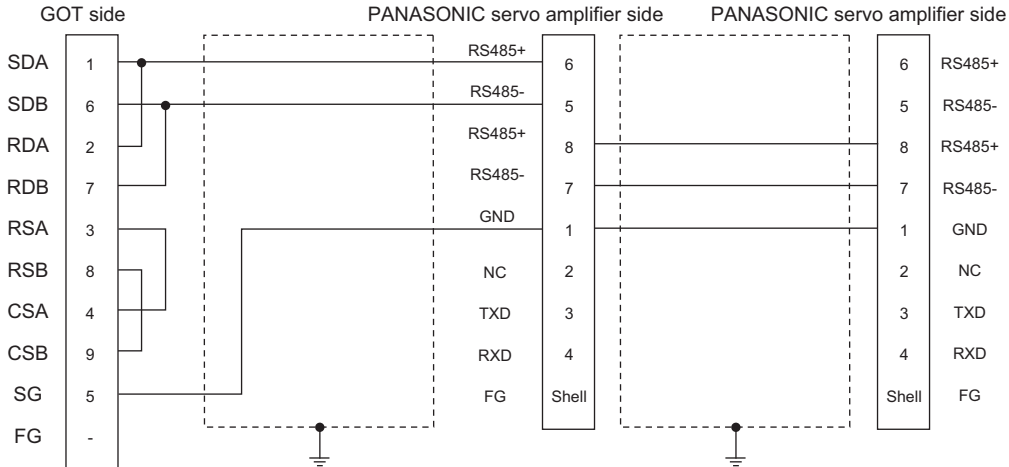
■RS-485 connection diagram 6)



■RS-485 connection diagram 7) (For GT16)



■RS-485 connection diagram 8)



Precautions when preparing a cable

■Cable length

The length of the RS-485 cable must be 1m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■PANASONIC servo amplifier side connector

Use the connector compatible with the PANASONIC servo amplifier.

For details, refer to the user's manual of the PANASONIC servo amplifier.

Connecting terminating resistors

■GOT side

- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to "Disable".

- For GT2505-V

Set the terminating resistor selector to "110Ω".

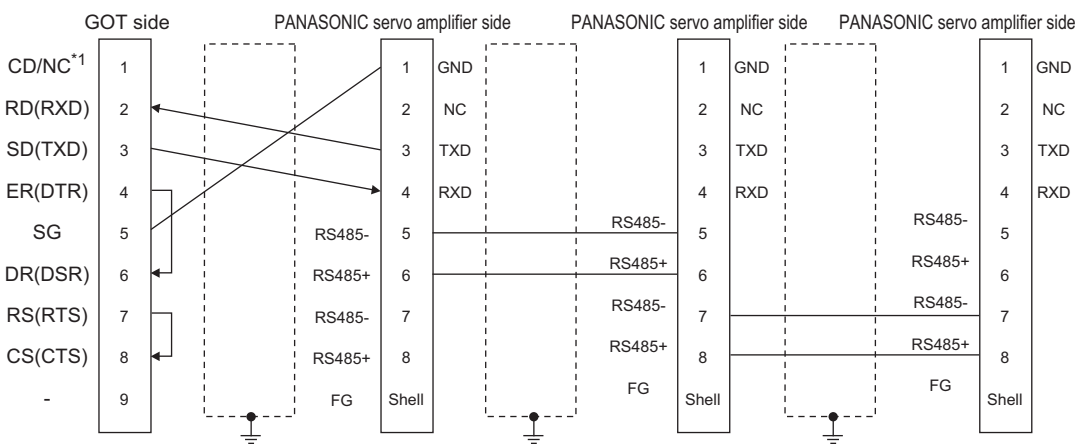
For details of terminating resistor settings, refer to the following.

☞ Page 62 Terminating resistors of GOT

RS-232/RS-485 cable

Connection diagram

■RS-232/485 connection diagram 1)



*1 GT27:CD, GT23:NC

Precautions when preparing a cable

■Cable length

- The length of the cable between GOT and MINAS must be 2m or less.
- The length of the cable between MINAS and MINAS must be 1m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■PANASONIC servo amplifier side connector

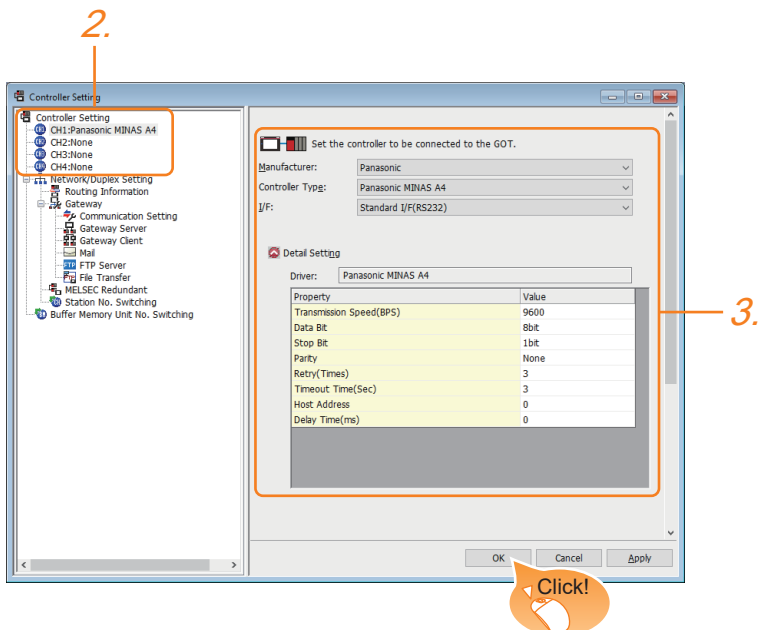
Use the connector compatible with the PANASONIC servo amplifier.

For details, refer to the user's manual of the PANASONIC servo amplifier.

14.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [Panasonic]
 - [Controller Type]: Select one of the following items according to the controller to be connected.
[Panasonic MINAS A4]
[Panasonic MINAS A5]
 - [I/F]: Interface to be used
 - [Detail Setting]: Configure the settings according to the usage environment.
4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | None |
| Retry(Times) | 3 |
| Timeout Time(Sec) | 3 |
| Host Address | 0 |
| Delay Time(ms) | 0 |


| Item | Description | Range |
|----------------------------|---|--|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bit/8bit |
| Stop Bit | Specify the stop bit length for communications. (Default: 1bit) | 1bit/2bit |
| Parity | Specify whether or not to perform a parity check, and how it is performed during communication. (Default: None) | None Even Odd |
| Retry | Set the number of retries to be performed when a communication error occurs. (Default:3times) | 0 to 5times |
| Timeout Time ^{*1} | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address | Specify the station No. of the servo amplifier to connect the GOT. (Default: 0) | 0 to 31 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300ms |

Point

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

14.5 Servo Amplifier Side Setting



PANASONIC Servo Amplifier

For details of the PANASONIC Servo Amplifier, refer to the following manual.

PANASONIC Servo Amplifier user's Manual

Connecting to MINAS A4/A4F/A4L

MINAS A4/A4F/A4L communication settings

Set them from the main unit front panel of MINAS A4/A4F/A4L or using the setup support software.

| Pr No. | Set value |
|---|---|
| Address of axis (Parameter No.00) | 0 to 15 |
| Baud rate setup of RS232 ^{*1} (Parameter No.0C) | 2:9600bps 3:19200bps 4:38400bps 5:57600bps |
| Baud rate setup of RS485 ^{*1} (Parameter No.0D) | 2:9600bps 3:19200bps 4:38400bps 5:57600bps |

*1 Only transmission speeds available on the GOT side are shown. Adjust the settings with GOT settings.



Axis name setting

- The axis name is determined according to the rotary switch ID set value when the power supply to the servo amplifier is turned on. This value will be the station number (axis number) during communication.
- The axis name setting can be changed only with the rotary switch ID.

Connecting to MINAS A5

MINAS A5 communication settings

Set them from the main unit front panel of MINAS A5 or using the setup support software.

| Pr No. | Set value |
|---|---|
| Address of axis (Parameter No.00) | 0 to 31 |
| Baud rate setup of RS232 ^{*1} (Parameter No.5.29) | 2:9600bps 3:19200bps 4:38400bps 5:57600bps |
| Baud rate setup of RS485 ^{*1} (Parameter No.5.30) | 2:9600bps 3:19200bps 4:38400bps 5:57600bps |

*1 Only transmission speeds available on the GOT side are shown.
Adjust the settings with GOT settings.

Station number setting

Set each station number so that no station number overlaps.

The station number can be set without regard to the cable connection order. There is no problem even if station numbers are not consecutive.

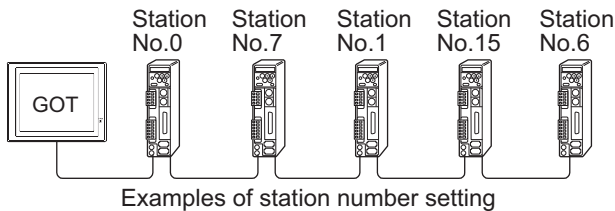
- When connecting the GOT and servo amplifier with RS-232

Set the station number (axis number) of the servo amplifier connected to the GOT to 0. Set the station numbers (axis numbers) of other servo amplifiers connected to the GOT to other than 0.

- When connecting the GOT and servo amplifier with RS-485

The GOT will be the station number (axis number) 0. Set the station numbers (axis numbers) of other connected servo amplifiers to other than 0.

Example of RS-232 connection between GOT-servo amplifier



Direct specification

When setting the device, specify the station number of the servo amplifier of which data is to be changed.

| Model name | Specification range |
|--------------------------------|---------------------|
| MINAS A4, MINAS A4F, MINAS A4L | 0 to 15 |
| MINAS A5 | 0 to 31 |

Indirect specification

When setting the device, indirectly specify the station number of the inverter of which data is to be changed using the 16-bit GOT internal data register (GD10 to GD25).

When specifying the station No. from 100 to 115 on drawing software, the value of GD10 to GD25 compatible to the station No. specification will be the station No. of the servo amplifier.

| Specification Station No. | Compatible device | Setting range |
|---------------------------|-------------------|---|
| 100 | GD10 | <ul style="list-style-type: none"> • MINAS A4, MINAS A4F, MINAS A4L 0 to 15 <ul style="list-style-type: none"> • MINAS A5 0 to 31 For the setting other than the above, a communication timeout error will occur. |
| 101 | GD11 | |
| 102 | GD12 | |
| 103 | GD13 | |
| 104 | GD14 | |
| 105 | GD15 | |
| 106 | GD16 | |
| 107 | GD17 | |
| 108 | GD18 | |
| 109 | GD19 | |
| 110 | GD20 | |
| 111 | GD21 | |
| 112 | GD22 | |
| 113 | GD23 | |
| 114 | GD24 | |
| 115 | GD25 | |

14.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 689 PANASONIC equipment ([Panasonic MINAS A4])

☞ Page 694 PANASONIC equipment ([Panasonic MINAS A5])

14.7 Precautions

Station number setting in the servo system

Configure the servo system so that there is a servo amplifier with a station number set with a host address.

For details of host address setting, refer to the following manual.

☞ Page 531 Communication detail settings

Monitor speed

When monitoring multiple station devices placed on the same GOT screen, the monitor speed is slow. Even when monitoring a single station, the monitor speed is slow if the device points is large.

Mixing of MINAS A4 series and MINAS A5 series









































































MINAS A4 series and MINAS A5 series cannot be mixed. The multiple MINAS A4 series can be used together.

15 PANASONIC INDUSTRIAL DEVICES SUNX PLC

- Page 535 Connectable Model List
- Page 536 System Configuration
- Page 569 Connection Diagram
- Page 585 GOT Side Settings
- Page 588 PLC Side Setting
- Page 591 Settable Device Range

15.1 Connectable Model List

The following table shows the connectable models.

| Model name | | Clock | Communication Type | Connectable GOT | Refer to |
|------------|-------------|-----------------|----------------------------|--|---|
| FP0 | FP0-C16CT | × | RS-232 |       | ☞ Page 536 Connecting to FP0-C16CT, FP0-C32CT, or FP0R |
| | FP0-C32CT | | | | |
| FP0R | | ○ | | | |
| FP1 | FP1-C24C | ○ | RS-232 |       | ☞ Page 538 Connecting to FP1-C24C or FP1-C40C |
| | FP1-C40C | | | | |
| FP2 | | ○ ^{*1} | RS-232 |       | ☞ Page 540 Connecting to FP2 or FP2SH |
| FP2SH | | ○ | RS-422 | | |
| FP3 | | ○ ^{*2} | RS-232 |       | ☞ Page 545 Connecting to FP3 or FP5 |
| FP5 | | ○ | | | |
| FP10(S) | | ○ | RS-232 |       | ☞ Page 547 Connecting to FP10(S) |
| FP10SH | | ○ | RS-232 |       | ☞ Page 550 Connecting to FP10SH |
| FP-M | FP-M(C20TC) | ○ | RS-232 |       | ☞ Page 552 Connecting to FP-M(C20TC) or FP-M(C32TC) |
| | FP-M(C32TC) | ○ | | | |
| FPΣ | | ○ | RS-232 |       | ☞ Page 554 Connecting to FPΣ |
| FP-X | | ○ | RS-232 RS-422 |       | ☞ Page 556 Connecting to FP-X |
| FP7 | | ○ ^{*3} | RS-232 RS-422 RS-485 |       | ☞ Page 559 Connecting to FP7 |
| FP0H | AFP0H32T | ○ | RS-232 |       | ☞ Page 564 Connecting to FP0H |
| | AFP0H32P | | | | |
| | AFP0H32ET | | | | |
| | AFP0H32EP | | | | |
| FP-XH | | ○ | RS-232 RS-422 |       | ☞ Page 566 System configuration for connecting to FP-XH |

*1 Any of the extension memory unit FP2-EM1, FP2-EM2 or FP2-EM3 is required.

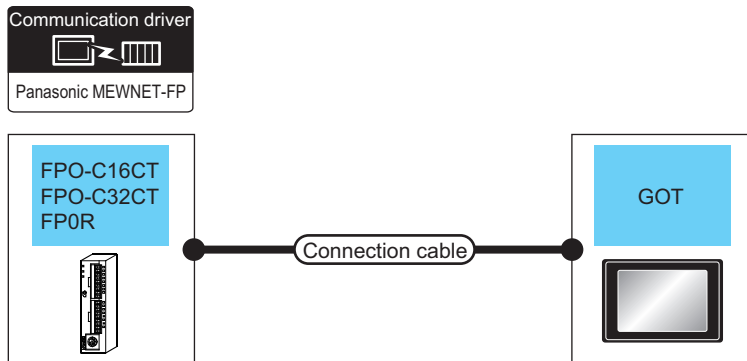
*2 The clock function is available for the AFP3210C-F, AFP3211C-F, AFP3212C-F and AFP3220C-F.

*3 The GOT can only read the clock data. In the clock setting, though the adjust is available, the broadcast is not available.

*4 For GS21, only GS21-W-N supports the RS-485 connection.

15.2 System Configuration

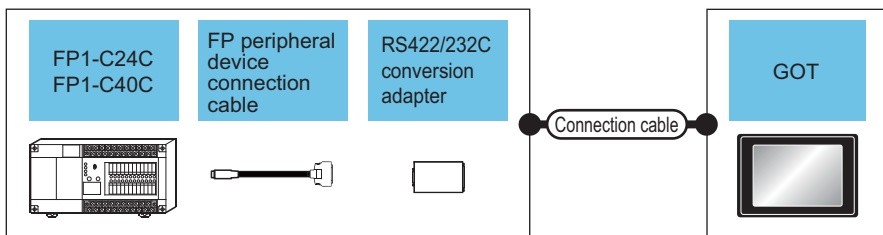
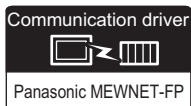
Connecting to FP0-C16CT, FP0-C32CT, or FP0R



| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|---|--------------------|---|---------------------------|--------------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model | Connection diagram number | | Option device ^{*3} | Model | |
| FP0-C16CT FP0-C32CT FP0R (Tool port) | RS-232 | AFC8503(3m) ^{*1} | | 3m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| GT10-C02H-6PT9P ^{*2} | | | | | | | |
| | | AFC8503(3m) ^{*1} + Page 571 RS-232 connection diagram 9) | | 3.5m | - (Built into GOT) | | |
| FP0-C16CT FP0-C32CT FP0R (RS232C port) | RS-232 | GT09-C30R20904-3C(3m) or Page 570 RS-232 connection diagram 4) | | 15m | - (Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | Page 572 RS-232 connection diagram 12) | 15m | - (Built into GOT) | | | |

- *1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.
- *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
- *3 GT25-W, GT2505-V does not support the option device.

Connecting to FP1-C24C or FP1-C40C

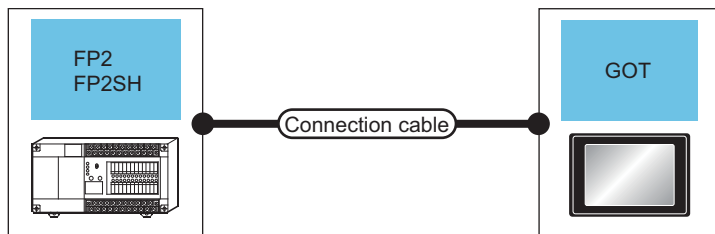
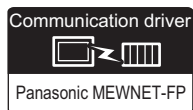


| PLC | | | | Connection cable Cable model Connection diagram number | Max. distance | GOT | | Number of connectable equipment |
|--|-----------------------|---|---|--|------------------|-----------------------------------|-------|---------------------------------------|
| Model name | Communication Type | FP peripheral device connection cable* ¹ Cable model Connection diagram number | RS422/232C conversion adapter* ¹ | | | Option device* ³ | Model | |
| FP1-C24C FP1-C40C (Tool port) | RS-232 | AFP15205(0.5m) | AFP8550 | GT09-C30R20901- 25P(3m) or (User preparing) Page 569 RS-232 connection diagram 1) | 15.5m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H- 6PT9P* ² | | |
| | | | | (User preparing) Page 571 RS-232 connection diagram 8) | 15.5m | - (Built into GOT) | | |
| FP1-C24C FP1-C40C (RS232C port) | RS-232 | - | - | GT09-C30R20903- 9P(3m) or (User preparing) Page 569 RS-232 connection diagram 3) | 15m | - (Built into GOT) | | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H- 6PT9P* ² | | |
| | | | | (User preparing) Page 573 RS-232 connection diagram 13) | 15m | - (Built into GOT) | | |










- *1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.
- *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
- *3 GT25-W, GT2505-V does not support the option device.

Connecting to FP2 or FP2SH

When connecting to tool port or RS232C port



| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|-----------------------------|--------------------|---|---------------------------|---------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model | Connection diagram number | | Option device *3 | Model | |
| FP2 FP2SH (Tool port) | RS-232 | AFC8503(3m) ^{*1} | | 3m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | - (Built into GOT) | | | | | |
| | | AFC8503(3m) ^{*1} + Page 571 RS-232 connection diagram 9) | | 3.5m | - (Built into GOT) | | |

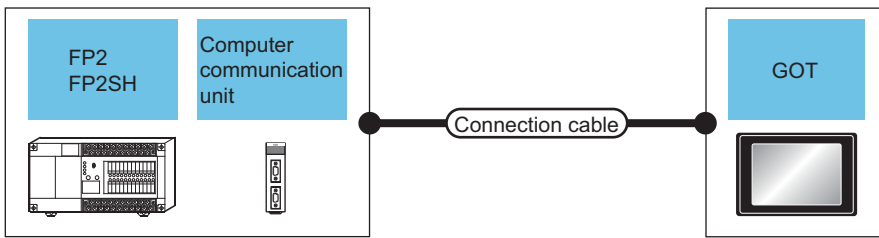
| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|-------------------------------|---|--|-------------------|---|---|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device* ³ | Model | |
| FP2 FP2SH (RS232C port) | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or  Page 569 RS-232 connection diagram 2) | 15m | -(Built into GOT) |  | 1 GOT for 1 PLC |
| | | GT15-RS2-9P | |  | | |
| | | GT10-C02H-6PT9P ^{*2} | |  | | |
| | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or  Page 569 RS-232 connection diagram 2) +  Page 572 RS-232 connection diagram 11) | 15m | -(Built into GOT) |  | | |
| | |  Page 572 RS-232 connection diagram 10) | 15m | -(Built into GOT) |  | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to computer communication unit



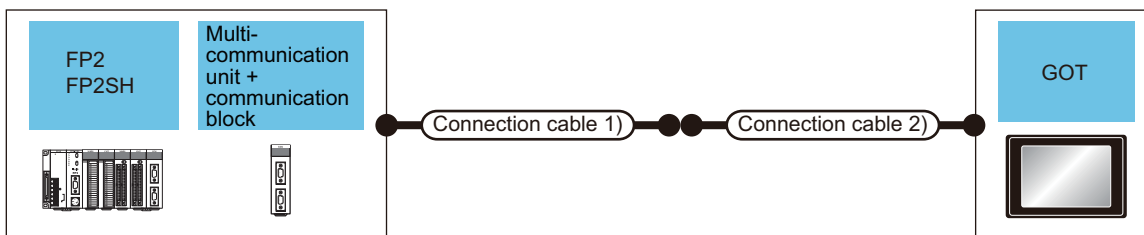
| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|--------------|-------------------------------|--------------------|--|---------------|--------------------|-------|---|
| Model name | Computer communication unit*1 | Communication Type | Cable model Connection diagram number | | Option device*3 | Model | |
| FP2 FP2SH | AFP2462 | RS-232 | AFB85853(3m)*1 GT09-C30R20902-9P(3m) or Page 569 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 computer communication unit |
| | | | GT15-RS2-9P | | | | |
| | | | GT10-C02H-6PT9P*2 | | | | |
| | | | Page 572 RS-232 connection diagram 10) | 15m | - (Built into GOT) | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to multi-communication unit and communication block

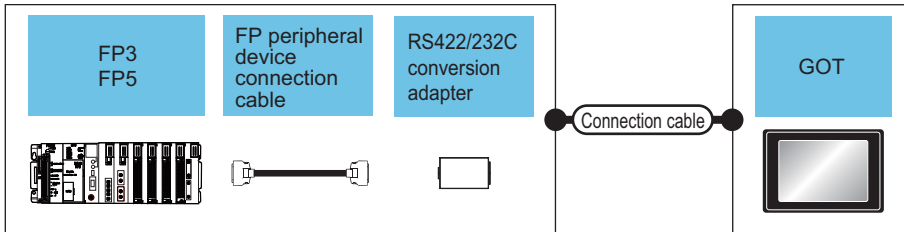
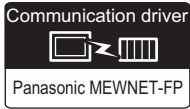


| PLC | | | Connection cable 1) | Connection cable 2) | Max. distance | GOT | | Number of connectable equipment |
|----------------------|--|--------------------|---|--|---------------|-----------------------------|-------|--|
| Model name | Multi-communication unit + communication block ^{*1} | Communication Type | Cable model Connection diagram number | Connection diagram number | | Option device ^{*3} | Model | |
| FP2 FP2SH | AFP2465 + AFP2803 | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or <small>(User preparing)</small> Page 577 RS-232 connection diagram 27) | - | 15m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit + communication block |
| | | | | - | | GT15-RS2-9P | | |
| | | | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or <small>(User preparing)</small> Page 577 RS-232 connection diagram 27) <small>(User preparing)</small> Page 578 RS-232 connection diagram 28) | <small>(User preparing)</small> Page 572 RS-232 connection diagram 11) | 15m | - (Built into GOT) | | |
| | | | - | - | - | - | | |
| AFP2465 + AFP2804 | RS-422 | RS-422 | <small>(User preparing)</small> Page 581 RS-422 connection diagram 5) | - | 1200m | - (Built into GOT) | | 1 GOT for 1 multi-communication unit + communication block |
| | | | | - | | GT15-RS4-9S | | |
| | | - | <small>(User preparing)</small> Page 581 RS-422 connection diagram 6) | - | 1200m | - (Built into GOT) | | |
| | | - | - | - | - | | | |

- *1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.
- *2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.
- *3 GT25-W, GT2505-V does not support the option device.

Connecting to FP3 or FP5

When connecting to tool port



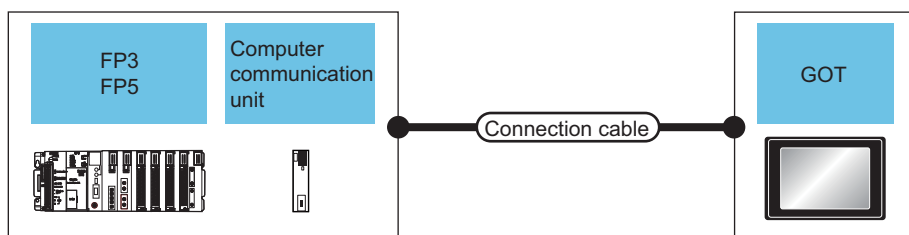
| PLC | | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|-------------------|---|---------------------------------|--------------------|---|---------------|--------------------|-------|--|
| Model name | FP peripheral device connection cable*1 | RS422/232C conversion adapter*1 | Communication Type | | | Option device*3 | Model | |
| FP3 FP5 | AFP5520(0.5m) | AFP8550 | RS-232 | GT09-C30R20901-25P(3m) or <small>(User preparing)</small> Page 569 RS-232 connection diagram 1) | 15.5m | - (Built into GOT) | | 1 GOT for 1 RS422/232 conversion adapter |
| | | | | | | GT15-RS2-9P | | |
| GT10-C02H-6PT9P*2 | | | | | | | | |
| | | | | <small>(User preparing)</small> Page 571 RS-232 connection diagram 8) | 15.5m | - (Built into GOT) | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to computer communication unit



| PLC | | Communication Type | Connection cable Cable model Connection diagram number | Max. distance | GOT | | Number of connectable equipment |
|------------|---|--------------------|--|---------------|-------------------------------|--------------|---|
| Model name | Computer communication unit ^{*1} | | | | Option device ^{*3} | Model | |
| FP3 | AFP3462 | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or Page 569 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 computer communication unit |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | Page 572 RS-232 connection diagram 10) | 15m | - (Built into GOT) | | |
| FP5 | AFP5462 | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or Page 569 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 computer communication unit |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | Page 572 RS-232 connection diagram 10) | 15m | - (Built into GOT) | | |

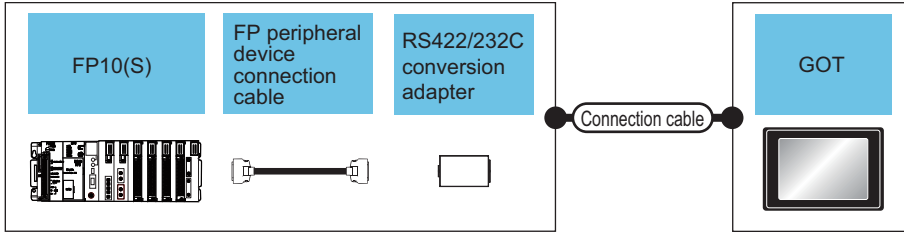
*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to FP10(S)

When connecting to tool port



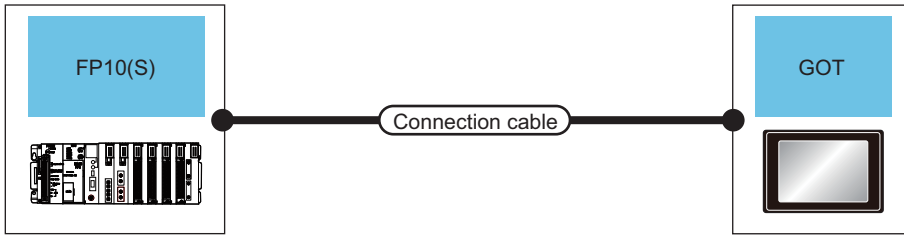
| PLC | | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|---|---------------------------------|--------------------|---|---------------|--------------------|-------|--|
| Model name | FP peripheral device connection cable*1 | RS422/232C conversion adapter*1 | Communication Type | | | Option device*3 | Model | |
| | Cable model Connection diagram number | | | Cable model Connection diagram number | | | | |
| FP10(S) | AFP5520(0.5m) | AFP8550 | RS-232 | GT09-C30R20901-25P or Page 569 RS-232 connection diagram 1) | 15.5m | - (Built into GOT) | | 1 GOT for 1 RS422/232 conversion adapter |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | | | | Page 571 RS-232 connection diagram 8) | 15.5m | - (Built into GOT) | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to RS232C port



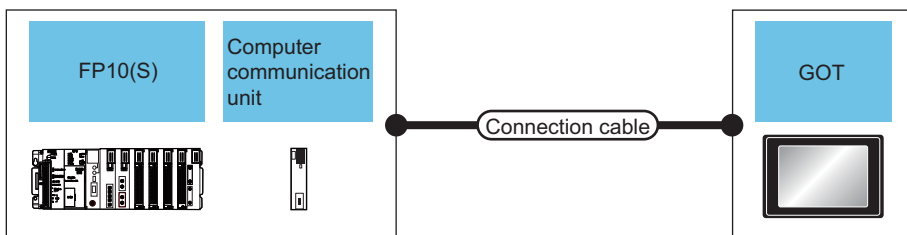
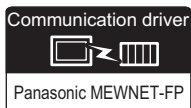
| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|---|---------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | |
| FP10(S) | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or Page 569 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P | | |
| | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or Page 569 RS-232 connection diagram 2) + Page 572 RS-232 connection diagram 11) | 15m | - (Built into GOT) | | |
| | | Page 572 RS-232 connection diagram 10) | 15m | - (Built into GOT) | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to computer communication unit



| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment | |
|------------|-------------------------------|--|--|--------------------|--------------------|-------------------|---|--|
| Model name | Computer communication unit*1 | Communication Type | Cable model Connection diagram number | | Option device*3 | Model | | |
| FP10(S) | AFP3462 | RS-232 | AFB85853(3m)*1 GT09-C30R20902-9P(3m) or Page 569 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 computer communication unit | |
| | | | | | | GT15-RS2-9P | | |
| | | | | | | GT10-C02H-6PT9P*2 | | |
| | | Page 572 RS-232 connection diagram 10) | 15m | - (Built into GOT) | | | | |

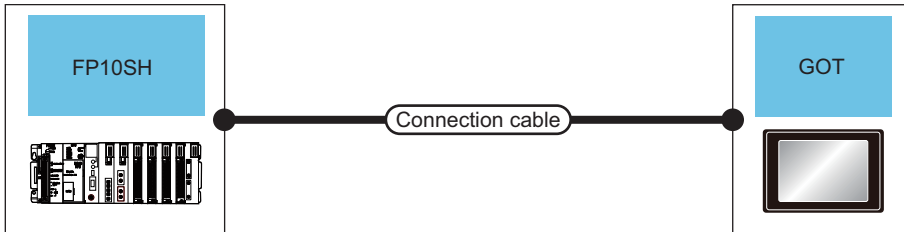
*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to FP10SH

When connecting to tool port or RS232C port



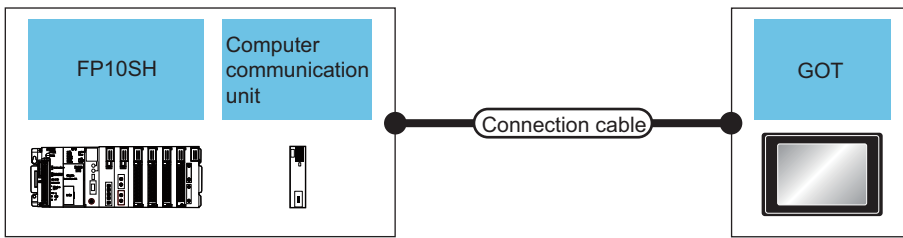
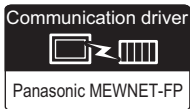
| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|---|---------------|-----------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | |
| FP10SH | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or <small>(User preparing)</small> Page 569 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | GT15-RS2-9P | | | | |
| | | GT10-C02H-6PT9P ^{*2} | | | | |
| | | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or <small>(User preparing)</small> Page 569 RS-232 connection diagram 2) + <small>(User preparing)</small> Page 572 RS-232 connection diagram 11) | 15m | - (Built into GOT) | | |
| | | <small>(User preparing)</small> Page 572 RS-232 connection diagram 10) | 15m | - (Built into GOT) | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to computer communication unit



| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|------------|---|--|--|--------------------|-----------------------------|-------|---|
| Model name | Computer communication unit* ¹ | Communication Type | Cable model Connection diagram number | | Option device* ³ | Model | |
| FP10SH | AFP3462 | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or Page 569 RS-232 connection diagram 2) | 15m | - (Built into GOT) | | 1 GOT for 1 computer communication unit |
| | | | GT15-RS2-9P | | | | |
| | | | GT10-C02H-6PT9P* ² | | | | |
| | | Page 572 RS-232 connection diagram 10) | 15m | - (Built into GOT) | | | |

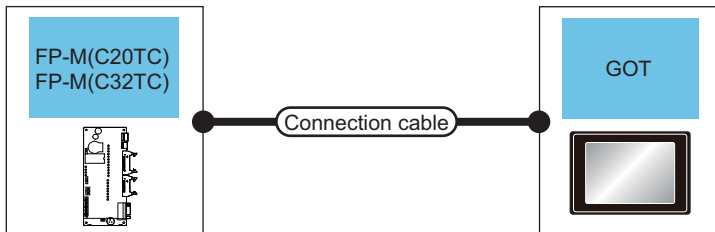
*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.




















*3 GT25-W, GT2505-V does not support the option device.

Connecting to FP-M(C20TC) or FP-M(C32TC)

When connecting to tool port or RS232C port



| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|--|--------------------|---|---------------------------|---------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model | Connection diagram number | | Option device *3 | Model | |
| FP-M(C20TC), FP-M(C32TC) (Tool port) | RS-232 | AFC8503(3m) ^{*1} | | 3m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | AFC8503(3m) ^{*1} + Page 571 RS-232 connection diagram 9) | | 3.5m | - (Built into GOT) | | |
| | | Page 572 RS-232 connection diagram 10) | | 15m | - (Built into GOT) | | |

| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|--|--------------------|---|---------------|-------------------------------|--|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device* ³ | Model | |
| FP-M(C20TC), FP-M(C32TC) (RS232C port) | RS-232 | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or  Page 569 RS-232 connection diagram 2) | 15m | -(Built into GOT) |        | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P |   | |
| | | | | GT10-C02H-6PT9P ^{*2} |   | |
| | | AFB85853(3m) ^{*1} GT09-C30R20902-9P(3m) or  Page 569 RS-232 connection diagram 2) +  Page 572 RS-232 connection diagram 11) | 15m | -(Built into GOT) |   | |
| | |  Page 572 RS-232 connection diagram 10) | 15m | -(Built into GOT) |   | |

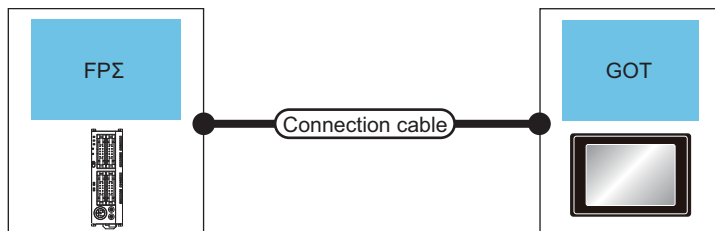
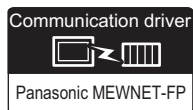
*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to FPΣ

When connecting to tool port



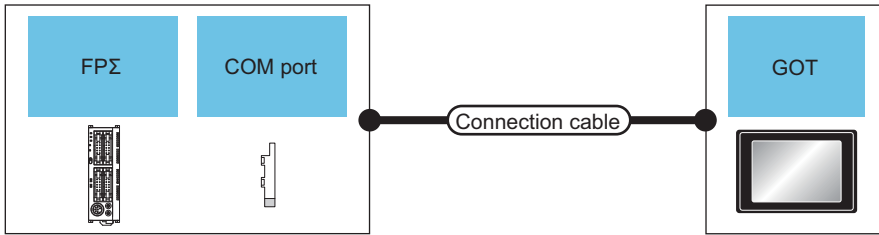
| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|---|---------------------------|--------------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model | Connection diagram number | | Option device ^{*3} | Model | |
| FPΣ | RS-232 | AFC8503(3m) ^{*1} | | 3m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | AFC8503(3m) ^{*1} + Page 571 RS-232 connection diagram 9) | 3.5m | - (Built into GOT) | | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to COM port



| PLC | | Communication Type | Connection cable Cable model Connection diagram number | Max. distance | GOT | | Number of connectable equipment |
|------------|------------------------|--------------------|--|---------------|-------------------------------|-------|---------------------------------|
| Model name | COM port ^{*1} | | | | Option device ^{*3} | Model | |
| FPΣ | AFPG801 | RS-232 | Page 570 RS-232 connection diagram 5) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | Page 573 RS-232 connection diagram 14) | 15m | - (Built into GOT) | | |
| | AFPG802 | RS-232 | Page 570 RS-232 connection diagram 6) | 15m | - (Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | Page 573 RS-232 connection diagram 15) | 15m | - (Built into GOT) | | |

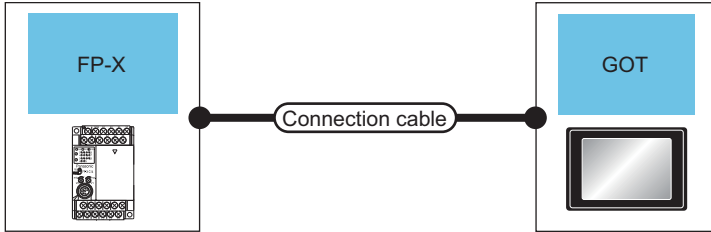
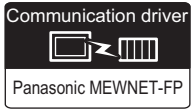
*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

Connecting to FP-X

When connecting to tool port



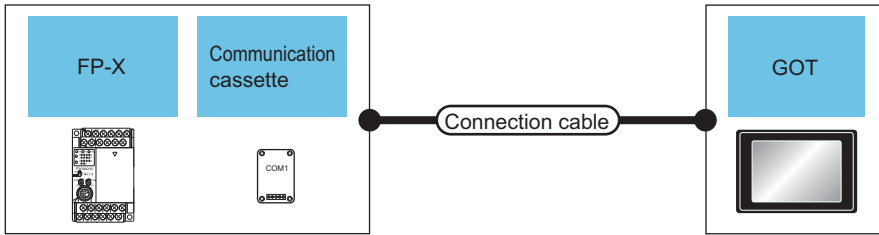
| PLC | | Connection cable | | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|---|---------------------------|--------------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model | Connection diagram number | | Option device ^{*3} | Model | |
| FP-X | RS-232 | AFC8503(3m) ^{*1} | | 3m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | AFC8503(3m) ^{*1} + Page 571 RS-232 connection diagram 9) | 3.5m | - (Built into GOT) | | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.




















*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

When connecting to communication cassette



| PLC | | Communication Type | Connection cable | | GOT | | Number of connectable equipment |
|--|--|--------------------|---|--------------------|--------------------|-------|---------------------------------|
| Model name | Communication cassette*1 | | Cable model | Max. distance | Option device*4 | Model | |
| FP-X | AFPX-COM1 (RS232C one channel type) | RS-232 | (User pressing) Page 570 RS-232 connection diagram 5) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*3 | | |
| | (User pressing) Page 573 RS-232 connection diagram 14) | | 15m | - (Built into GOT) | | | |
| | AFPX-COM2*2 (RS232C two channel type) | | (User pressing) Page 570 RS-232 connection diagram 6) | 15m | - (Built into GOT) | | |
| | | | | | GT15-RS2-9P | | |
| GT10-C02H-6PT9P*3 | | | | | | | |
| (User pressing) Page 573 RS-232 connection diagram 15) | 15m | - (Built into GOT) | | | | | |

| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|---|--|--------------------|--|---------------|-------------------------------|---|---------------------------------|
| Model name | Communication cassette ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*4} | Model | |
| FP-X | AFPX-COM3 (RS485/RS422 one channel type) | RS-422 |  Page 579 RS-422 connection diagram 1) | 1200m | - (Built into GOT) |     | 1 GOT for 1 PLC |
| | | | | | GT15-RS4-9S |  | |
| | | | | | GT10-C02H-9SC |  | |
| | | |  Page 579 RS-422 connection diagram 2) | 1200m | - (Built into GOT) |   | |
| AFPX-COM4 ^{*2} (RS485 one channel and RS232C one channel mixed type) | RS-232 | |  Page 571 RS-232 connection diagram 7) | 15m | - (Built into GOT) |     | |
| | | | | | GT15-RS2-9P |  | |
| | | | | | GT10-C02H-6PT9P ^{*3} |  | |
| | | |  Page 574 RS-232 connection diagram 16) | 15m | - (Built into GOT) |  | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

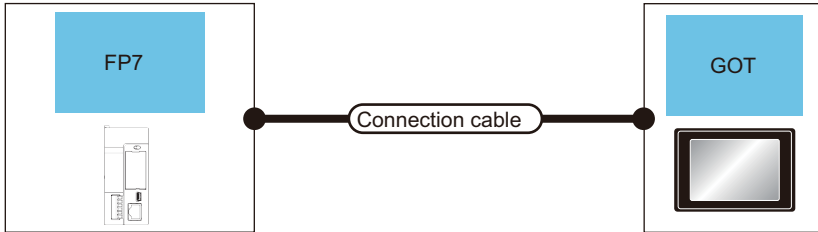
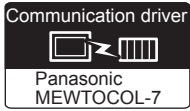
*2 To connect C30 and C60, USB port may set at the COM2 port on AFPX-COM2 and AFPX-COM4. In this case, set the COM2 port to RS232C.

*3 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*4 GT25-W, GT2505-V does not support the option device.

Connecting to FP7

When connecting to Serial port built into CPU module

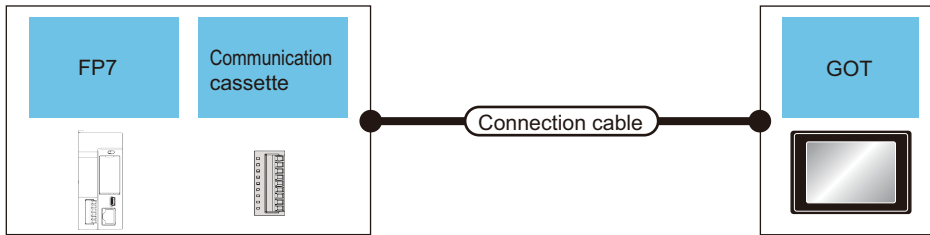


| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|--|---------------|-------------------------------|-------|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device ^{*2} | Model | |
| FP7 | RS-232 | <small>(User opening)</small> Page 574 RS-232 connection diagram 17) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P | | |
| | | | | GT10-C02H-6PT9P ^{*1} | | |
| | | <small>(User opening)</small> Page 574 RS-232 connection diagram 18) | 15m | - (Built into GOT) | | |

*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.



















*2 GT25-W, GT2505-V does not support the option device.

















When connecting to communication cassette



| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|------------------------------------|--------------------|--|---------------|--------------------|-------|---------------------------------|
| Model name | Communication cassette*1 | Communication Type | Cable model Connection diagram number | | Option device*3 | Model | |
| FP7 | AFP7CCS1 | RS-232 | Page 574 RS-232 connection diagram 17) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | Page 574 RS-232 connection diagram 18) | 15m | - (Built into GOT) | | |
| | AFP7CCS2 ([3 Wire] is selected) | RS-232 | Page 574 RS-232 connection diagram 17) (3 Wire) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P*2 | | |
| | | | Page 574 RS-232 connection diagram 18) (3 Wire) | 15m | - (Built into GOT) | | |

| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|--------------------------------------|--------------------------------------|--|---|--|-------------------------------|-------|---------------------------------|
| Model name | Communication cassette ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | |
| FP7 | AFP7CCS2 ([5 Wire] is selected) | RS-232 | (User resizing) Page 575 RS-232 connection diagram 19) (5 Wire) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | GT15-RS2-9P | | |
| | | | | | GT10-C02H-6PT9P ^{*2} | | |
| | | | (User resizing) Page 575 RS-232 connection diagram 20) (5 Wire) | 15m | - (Built into GOT) | | |
| AFP7CCS1M1 ([RS-422] is selected) | RS-422 | (User resizing) Page 580 RS-422 connection diagram 3) | 400m | - (Built into GOT) | | | |
| | | | | | GT15-RS4-9S | | |
| | | | | | GT10-C02H-9SC | | |
| | | | | (User resizing) Page 580 RS-422 connection diagram 4) | 400m | | - (Built into GOT) |
| AFP7CCS1M1 ([RS-485] is selected) | RS-485 | (User resizing) Page 583 RS-485 connection diagram 1) | 1200m | - (Built into GOT) | | | |
| | | | | | GT15-RS4-9S | | |
| | | | | | GT10-C02H-9SC | | |
| | | | | (User resizing) Page 583 RS-485 connection diagram 2) | 1200m | | - (Built into GOT) |

| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment | |
|--------------------------------------|--------------------------------------|--|---|--------------------|---|---|---|---|
| Model name | Communication cassette ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | | |
| FP7 | AFP7CCS1M2 ([RS-422] is selected) | RS-422 |  Page 580 RS-422 connection diagram 3) | 400m | - (Built into GOT) |  | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |  |
| | | |  Page 580 RS-422 connection diagram 4) | 400m | - (Built into GOT) |  | | |
| AFP7CCS1M2 ([RS-485] is selected) | RS-485 |  Page 583 RS-485 connection diagram 1) | 1200m | - (Built into GOT) |  | *4 | | |
| | | | | | GT15-RS4-9S | |  | |
| | | | | | GT10-C02H-9SC | |  | |
| | |  Page 583 RS-485 connection diagram 2) | 1200m | - (Built into GOT) |  | | | |
| AFP7CCS1M1 | RS-232 |  Page 574 RS-232 connection diagram 17) | 15m | - (Built into GOT) |  | | | |
| | | | | | GT15-RS2-9P | |  | |
| | | | | | GT10-C02H-6PT9P ^{*2} | |  | |
| | |  Page 574 RS-232 connection diagram 18) | 15m | - (Built into GOT) |  | | | |

| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------------------------|--------------------|---|---------------|-----------------------------|---|---------------------------------|
| Model name | Communication cassette ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | |
| FP7 | AFP7CCS1M1 | RS-485 |  Page 583 RS-485 connection diagram 1) | 1200m | - (Built into GOT) |       *4 | 1 GOT for 1 PLC |
| | | | | | GT15-RS4-9S |   | |
| | | | | | GT10-C02H-9SC |   | |
| | | |  Page 583 RS-485 connection diagram 2) | 1200m | - (Built into GOT) |     | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

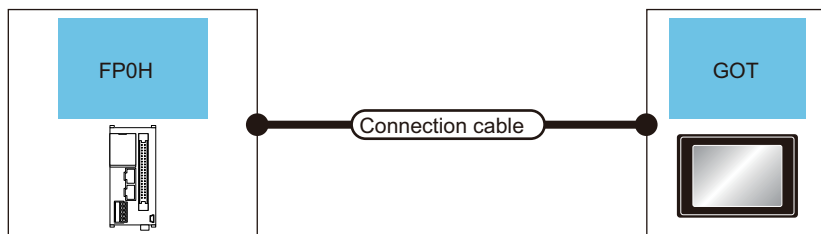
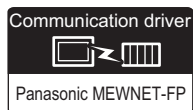
*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

*4 Only available to GS21-W-N for GS21.

Connecting to FP0H

When connecting to Serial port built into CPU module

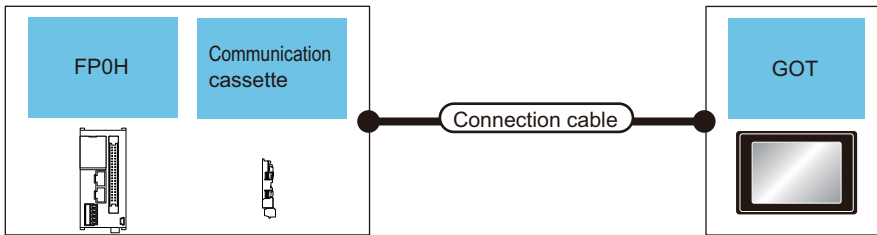
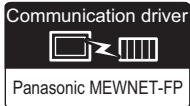


| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|--|---------------|-------------------------------|--|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device ^{*2} | Model | |
| FP0H | RS-232 | <small>(User preparing)</small> Page 575 RS-232 connection diagram 21) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GT 21 ^{07W} GT 21 ^{05A} GS 25 GS 21 | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P | GT 27 GT 25 | |
| | | | | GT10-C02H-6PT9P ^{*1} | GT 27 ^{03P} GT 25 ^{03P} R4 R2 | |
| | | <small>(User preparing)</small> Page 576 RS-232 connection diagram 22) | 15m | - (Built into GOT) | GT 21 ^{04B} GT 25 ^{03P} R2 R2 | |

*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*2 GT25-W, GT2505-V does not support the option device.

When connecting to communication cassette



| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|--|--------------------------------------|--------------------|--|---------------|--|-----------------------------|---------------------------------|
| Model name | Communication cassette ^{*1} | Communication Type | | | Cable model Connection diagram number | Option device ^{*3} | |
| FP0H | AFP0HCCS1 AFP0HCCS2 | RS-232 | Page 576 RS-232 connection diagram 23) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC |
| | | | | | | | |
| | | | | | | | |
| | AFP0HCCS1M1 | | Page 576 RS-232 connection diagram 24) | | - (Built into GOT) | | |
| | | | | | | | |
| | | | | | | | |
| Page 577 RS-232 connection diagram 25) | - (Built into GOT) | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Page 577 RS-232 connection diagram 26) | - (Built into GOT) | | | | | | |
| | | | | | | | |
| | | | | | | | |

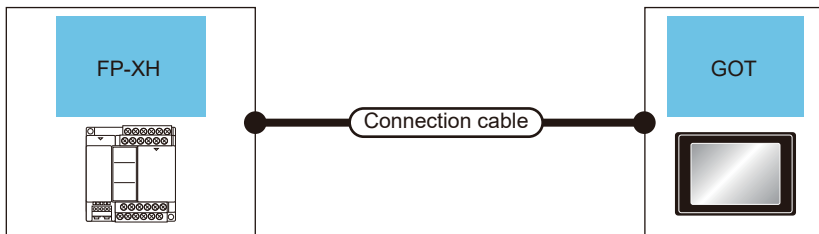
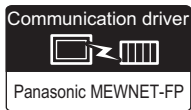
*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

System configuration for connecting to FP-XH

When connecting to COM0 port

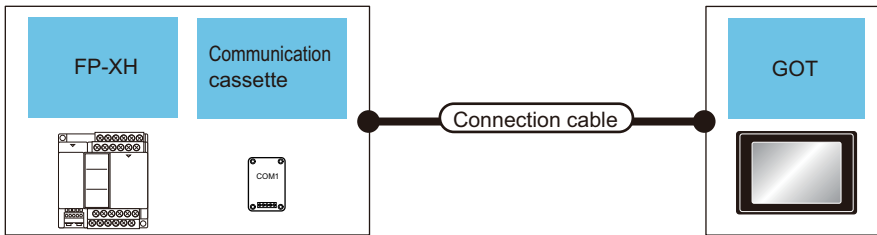
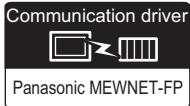


| PLC | | Connection cable | Max. distance | GOT | | Number of connectable equipment |
|------------|--------------------|--|---------------|-------------------------------|---|---------------------------------|
| Model name | Communication Type | Cable model Connection diagram number | | Option device ^{*2} | Model | |
| FP-XH | RS-232 | <small>(User preparing)</small> Page 575 RS-232 connection diagram 21) | 15m | - (Built into GOT) | GT 27 GT 25 GT 23 GT 21 GT 21 ^{05A} GS 25 GS 21 | 1 GOT for 1 PLC |
| | | | | GT15-RS2-9P | GT 27 GT 25 | |
| | | | | GT10-C02H-6PT9P ^{*1} | GT 21 ^{03R} GT 21 ^{03P} R4 R2 | |
| | | <small>(User preparing)</small> Page 576 RS-232 connection diagram 22) | 15m | - (Built into GOT) | GT 21 ^{04R} GT 21 ^{03P} R2 R2 | |













*1 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*2 GT25-W, GT2505-V does not support the option device.

When connecting to communication cassette



| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment | | |
|--|--|--------------------|--|---------------|-----------------------------|---|---------------------------------|--------------------|-------------|
| Model name | Communication cassette ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | | | |
| FP-XH | AFPX-COM1 (RS232C one channel type) | RS-232 | (User manual) Page 570 RS-232 connection diagram 5) | 15m | - (Built into GOT) | | 1 GOT for 1 PLC | | |
| | | | | | | GT15-RS2-9P | | | |
| | | | | | | GT10-C02H-6PT9P ^{*2} | | | |
| | AFPX-COM2 (RS232C two channel type) | | (User manual) Page 573 RS-232 connection diagram 14) | 15m | - (Built into GOT) | | | | |
| | | | | | | (User manual) Page 570 RS-232 connection diagram 6) | 15m | - (Built into GOT) | |
| | | | | | | | | | GT15-RS2-9P |
| (User manual) Page 573 RS-232 connection diagram 15) | 15m | - (Built into GOT) | | | | | | | |
| | | | GT10-C02H-6PT9P ^{*2} | | | | | | |

| PLC | | | Connection cable | Max. distance | GOT | | Number of connectable equipment | |
|-------------------------------|---|--|---|--------------------|---|---|---|---|
| Model name | Communication cassette ^{*1} | Communication Type | Cable model Connection diagram number | | Option device ^{*3} | Model | | |
| FP-XH | AFPX-COM3 (RS485/RS422 one channel type) | RS-422 |  Page 579 RS-422 connection diagram 1) | 1200m | - (Built into GOT) |  | 1 GOT for 1 PLC | |
| | | | | | | GT15-RS4-9S | |  |
| | | | | | | GT10-C02H-9SC | |  |
| | | |  Page 579 RS-422 connection diagram 2) | 1200m | - (Built into GOT) |  | | |
| | AFPX-COM4 (RS485 one channel and RS232C one channel mixed type) | RS-232 |  Page 571 RS-232 connection diagram 7) | 15m | - (Built into GOT) |  | | |
| | | | | | | GT15-RS2-9P |  | |
| GT10-C02H-6PT9P ^{*2} | | | | | |  | | |
| | |  Page 574 RS-232 connection diagram 16) | 15m | - (Built into GOT) |  | | | |

*1 Product manufactured by Panasonic Industrial Devices SUNX Co., Ltd. For details of this product, contact Panasonic Industrial Devices SUNX Co., Ltd.

*2 When a GT10-C02H-6PT9P unit of the sub version A or B is used, do not ground the case of the D-sub (9-pin) connector.

*3 GT25-W, GT2505-V does not support the option device.

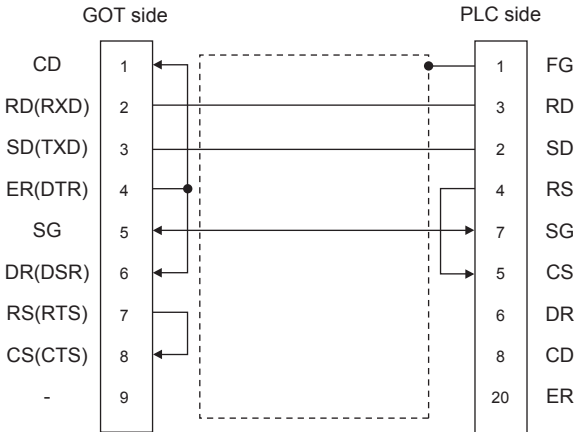
15.3 Connection Diagram

The following diagram shows the connection between the GOT and the PLC.

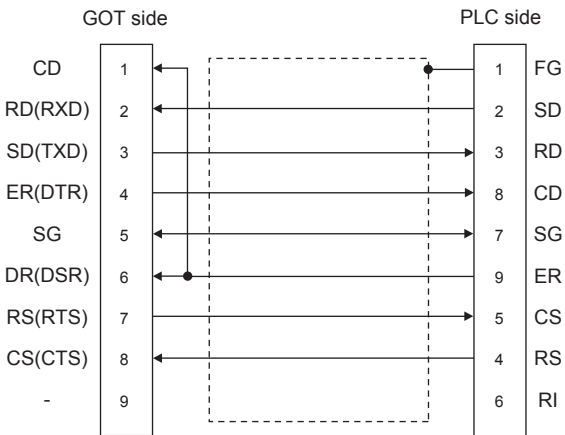
RS-232 cable

Connection diagram

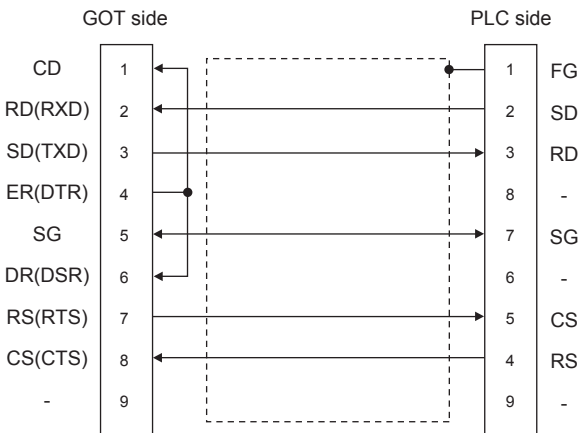
■RS-232 connection diagram 1)



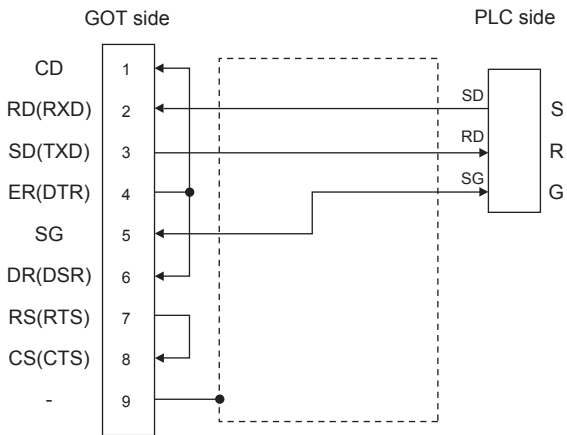
■RS-232 connection diagram 2)



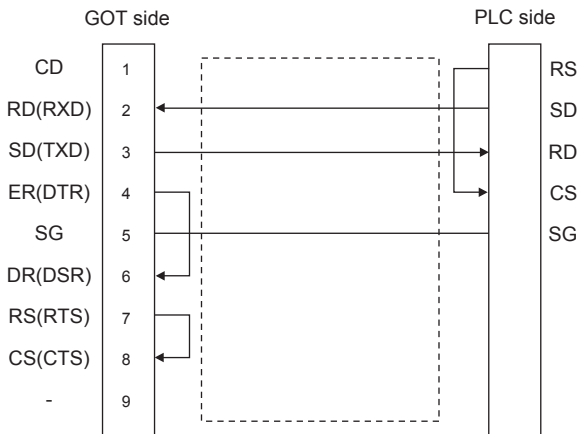
■RS-232 connection diagram 3)



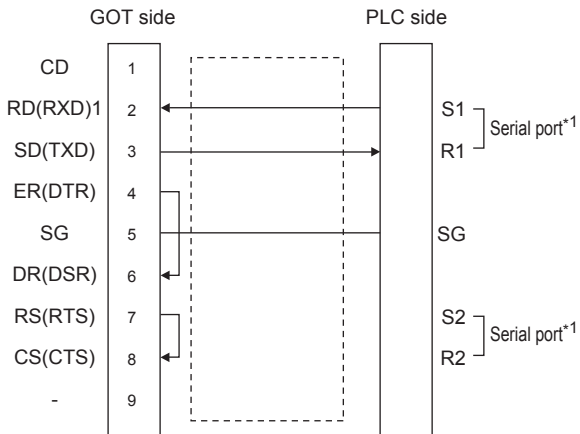
■RS-232 connection diagram 4)



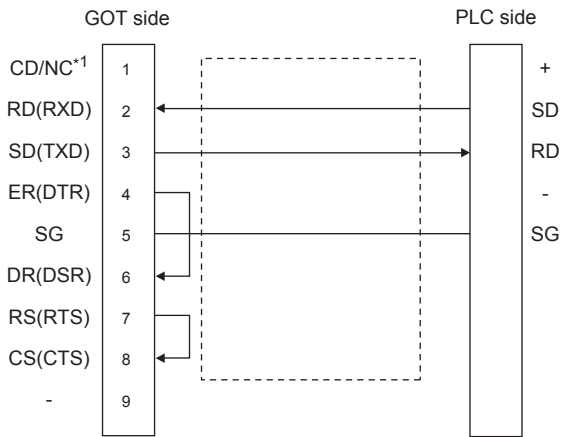
■RS-232 connection diagram 5)



■RS-232 connection diagram 6)

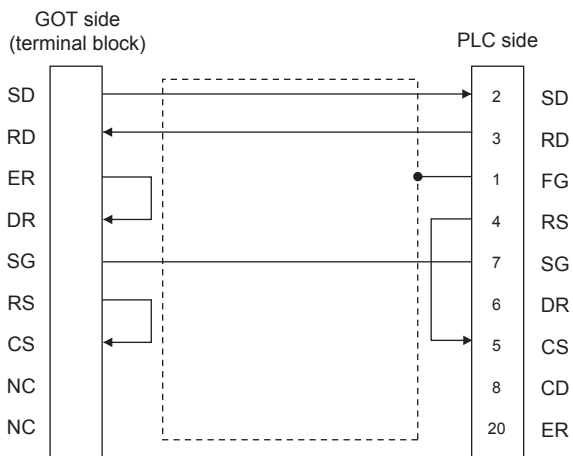


RS-232 connection diagram 7)

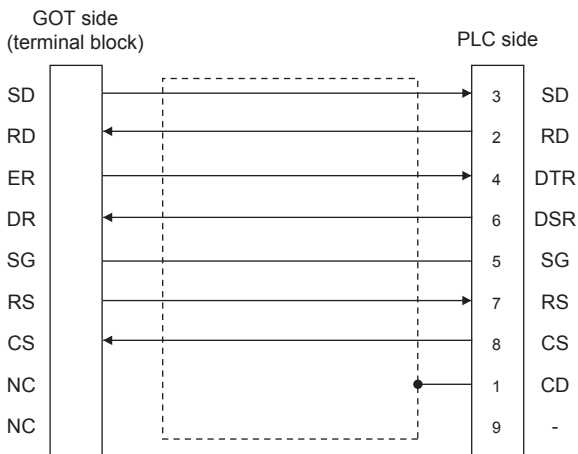


*1 GT27: CD, GT23:NC

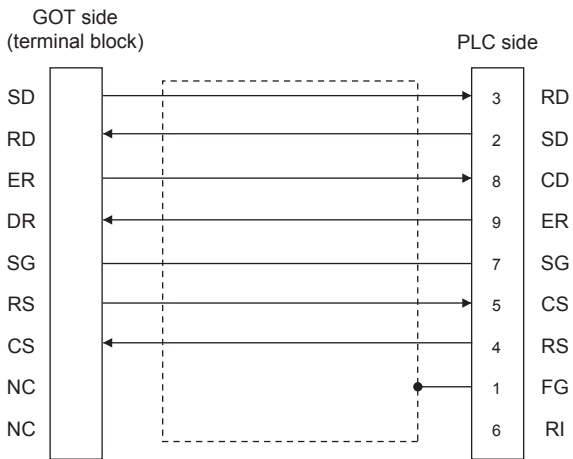
RS-232 connection diagram 8)



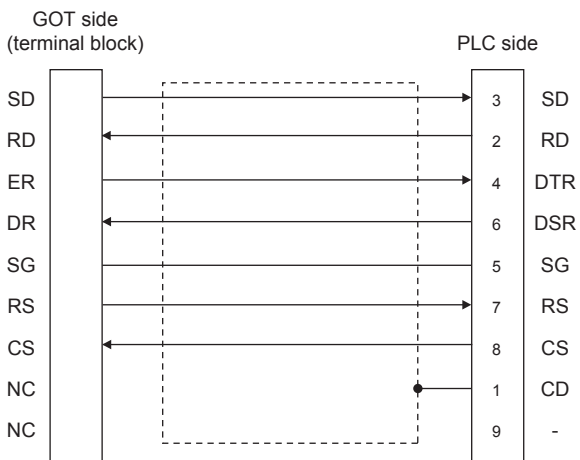
RS-232 connection diagram 9)



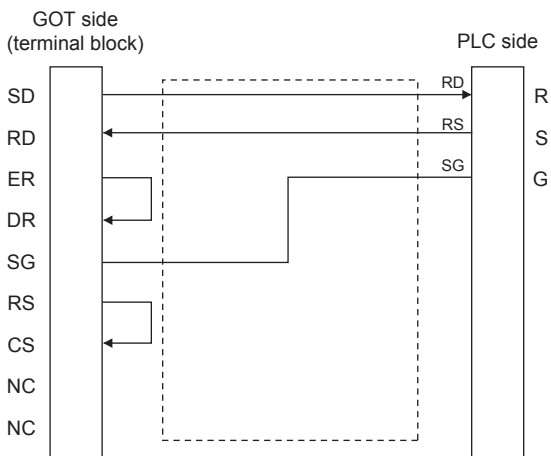
■RS-232 connection diagram 10)



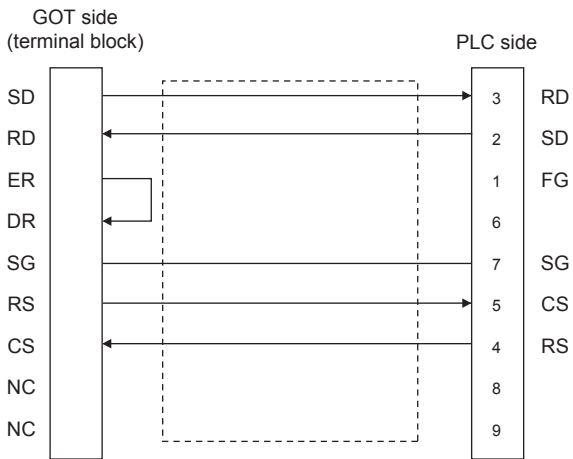
■RS-232 connection diagram 11)



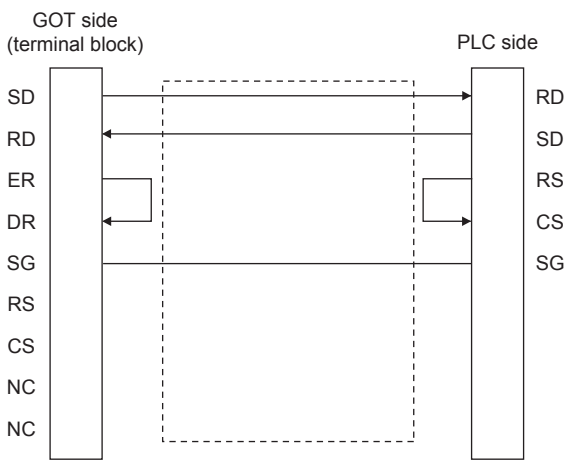
■RS-232 connection diagram 12)



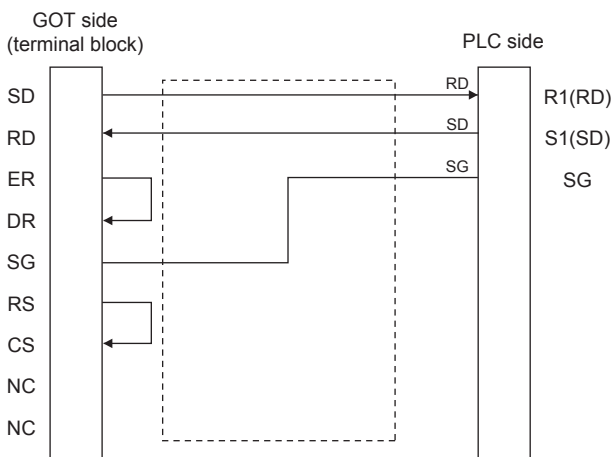
RS-232 connection diagram 13)



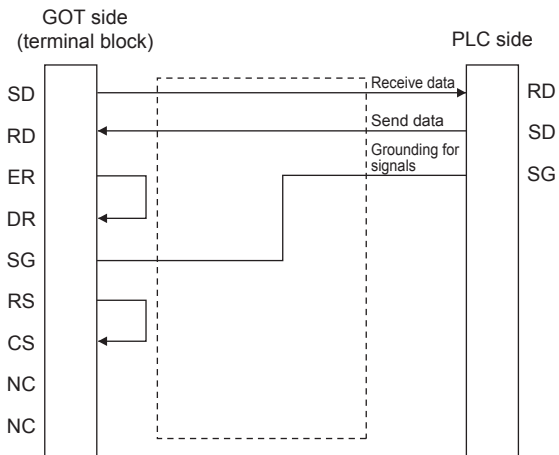
RS-232 connection diagram 14)



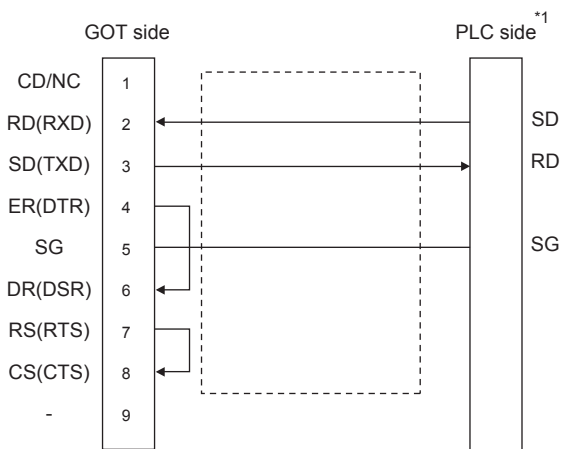
RS-232 connection diagram 15)



■RS-232 connection diagram 16)



■RS-232 connection diagram 17)

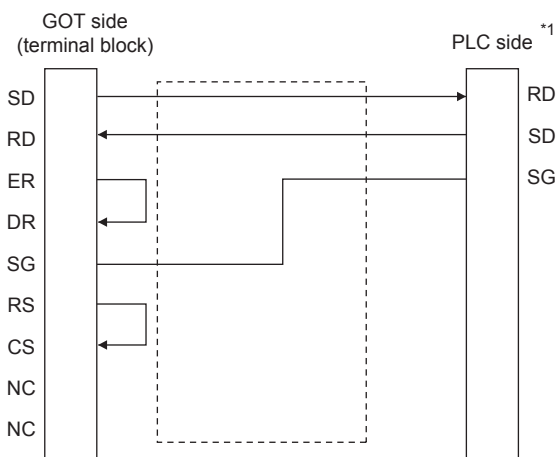


*1 The details of the connection on the PLC are shown below.

Built-in port: COM.0

Communication cassette: AFP7CCS1, AFP7CCS2 of CH1([3 Wire] is selected), AFP7CCS2 of CH2([3 Wire] is selected), AFP7CCS1M1

■RS-232 connection diagram 18)

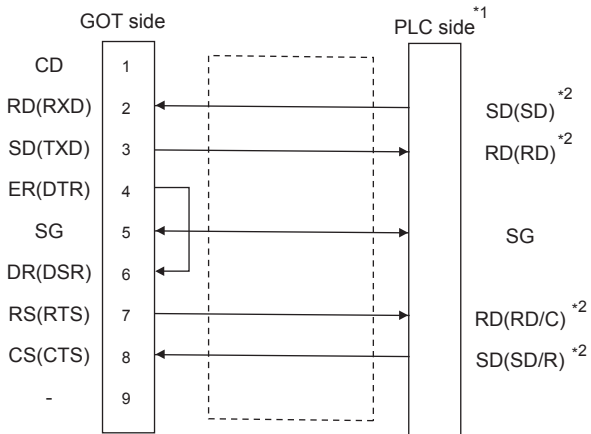


*1 The details of the connection on the PLC are shown below.

Built-in port: COM.0

Communication cassette: AFP7CCS1, AFP7CCS2 of CH1([3 Wire] is selected), AFP7CCS2 of CH2([3 Wire] is selected), AFP7CCS1M1

■RS-232 connection diagram 19)

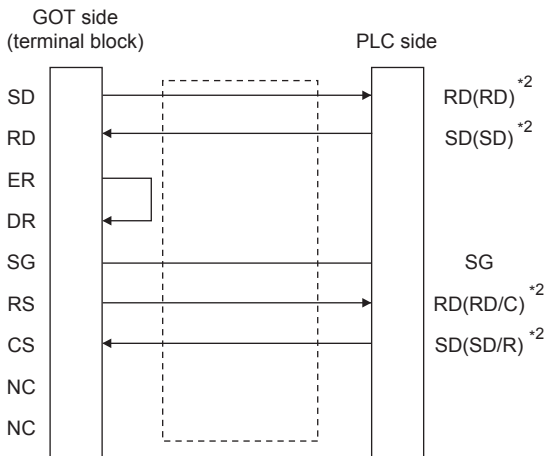


*1 The details of the connection on the PLC are shown below.

Communication cassette: AFP7CCS2([5 Wire] is selected)

*2 Connect to the terminal for which the front panel LED of the communication cassette shown in parentheses is ON.

■RS-232 connection diagram 20)

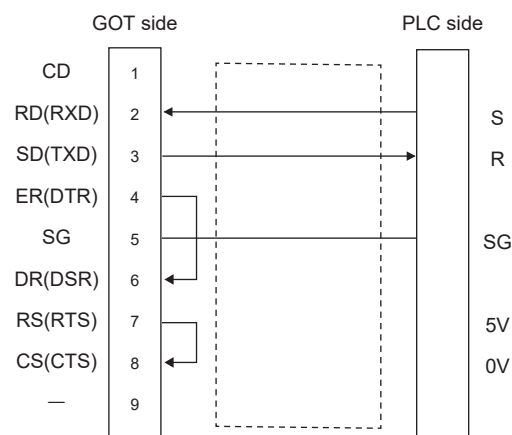


*1 The details of the connection on the PLC are shown below.

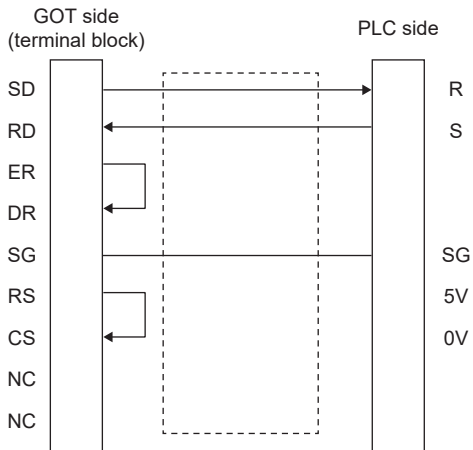
Communication cassette : AFP7CCS2([5 Wire] is selected)

*2 Connect to the terminal for which the front panel LED of the communication cassette shown in parentheses is ON.

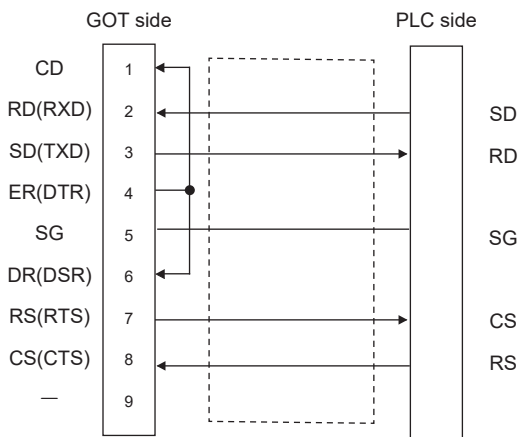
■RS-232 connection diagram 21)



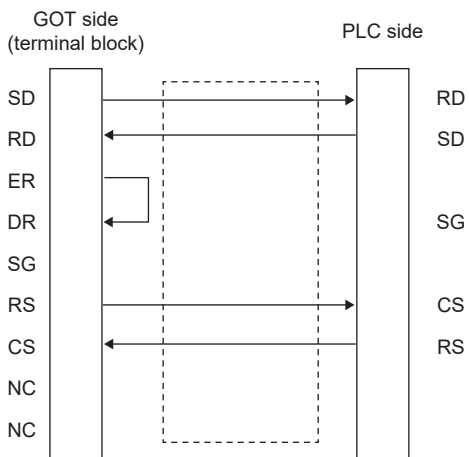
■RS-232 connection diagram 22)



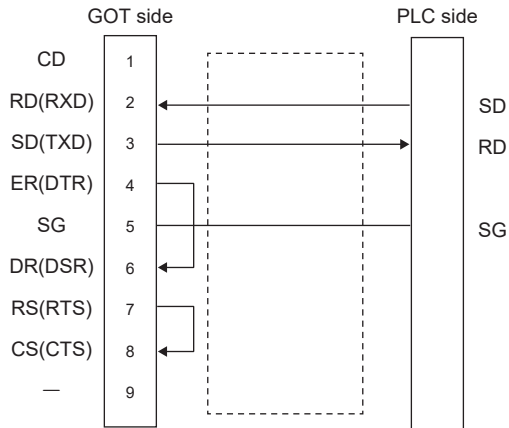
■RS-232 connection diagram 23)



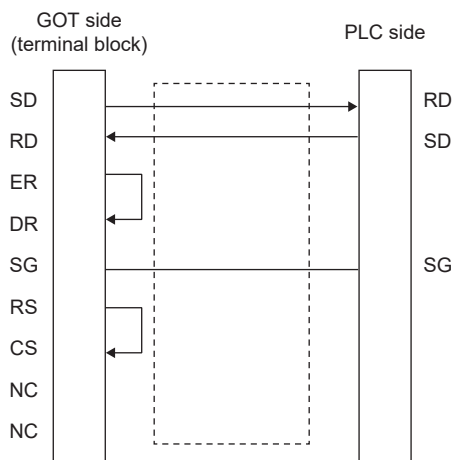
■RS-232 connection diagram 24)



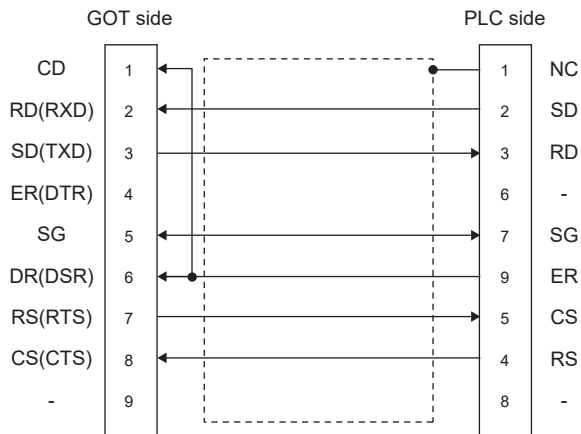
■RS-232 connection diagram 25)



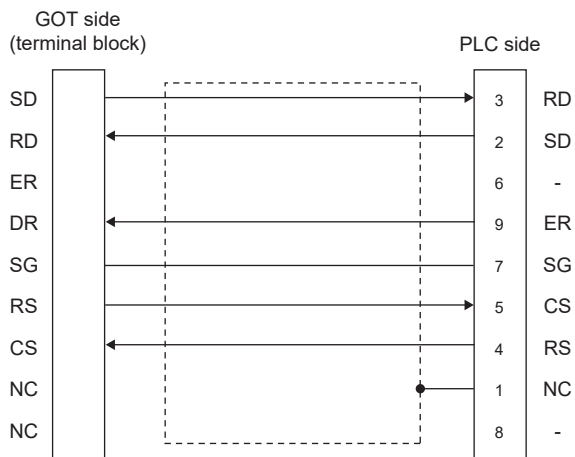
■RS-232 connection diagram 26)



■RS-232 connection diagram 27)



■RS-232 connection diagram 28)



Precautions when preparing a cable

■Cable length

The length of the RS-232 cable must be 15m or less. The length of the cable must be 3m or less with a transmission speed of 38400bps.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■Connector for Panasonic Industrial Devices SUNX PLC

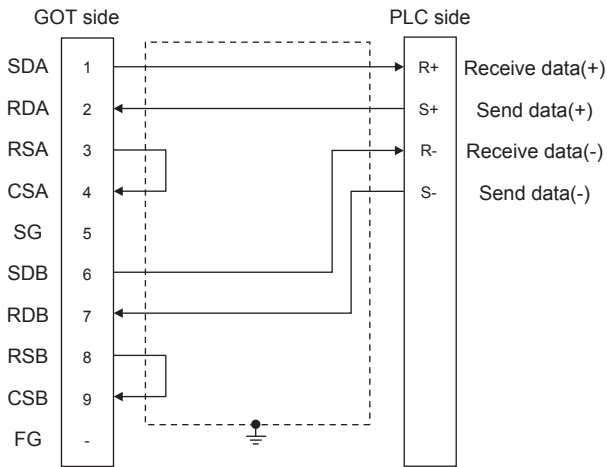
Use the connector applicable to the Panasonic Industrial Devices SUNX PLC.

For details, refer to the Panasonic Industrial Devices SUNX PLC user's manual.

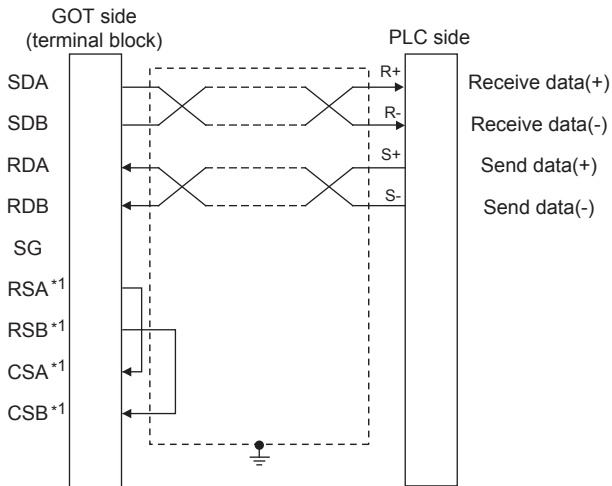
RS-422 cable

Connection diagram

■RS-422 connection diagram 1)

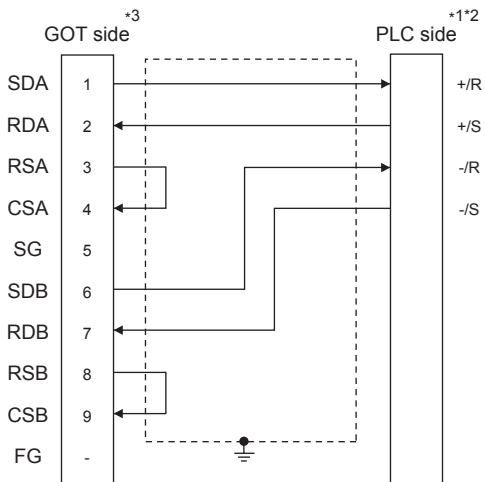


■RS-422 connection diagram 2)



*1 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS-422 connection diagram 3)



*1 The details of the connection on the PLC are shown below.

Communication cassette: AFP7CCM1, AFP7CCM2 of CH1([RS-422] is selected), AFP7CCM2 of CH2([RS-422] is selected)

*2 Set the terminating resistor of the PLC to [ON].

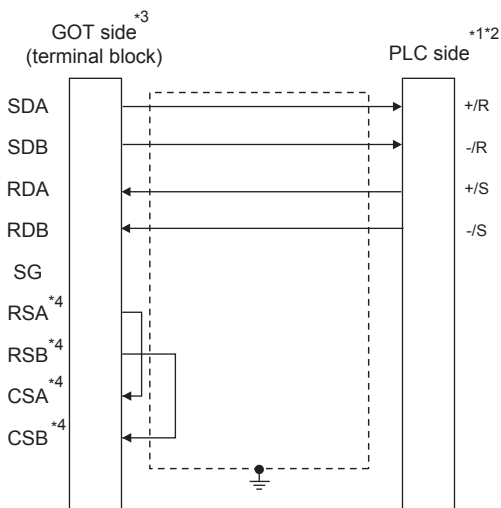
*3 Set the terminating resistor of the GOT as follows.

For GT27, GT25 (except GT2505-V), GT23, or GS25, set the terminating resistor to "Disable".

For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 330 Ω.

For GS21-W, since the terminating resistor is fixed to 330 Ω, no setting is required for the terminating resistor.

■RS-422 connection diagram 4)



*1 The details of the connection on the PLC are shown below.

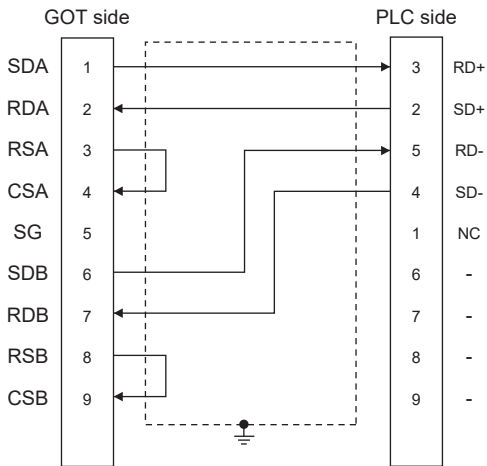
Communication cassette: AFP7CCM1, AFP7CCM2 of CH1([RS-422] is selected), AFP7CCM2 of CH2([RS-422] is selected)

*2 Set the terminating resistor of the PLC to [ON].

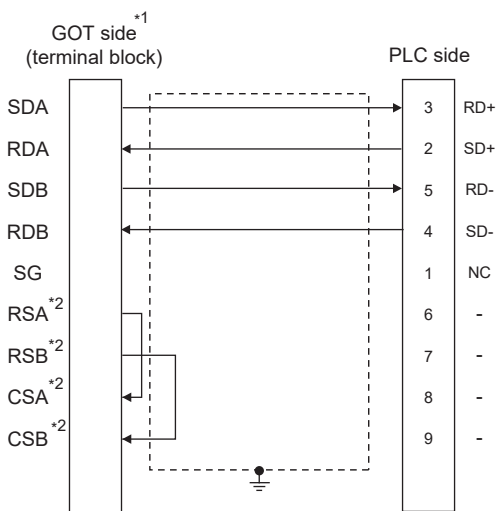
*3 Set the terminating resistor of the GOT to 330 Ω.

*4 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

■RS-422 connection diagram 5)



■RS-422 connection diagram 6)



*1 Set the terminating resistor settings of the GOT side to 330Ω.

*2 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

Precautions when preparing a cable

■Cable length

The length of the RS-422 cable must be 1200m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■Connector for Panasonic Industrial Devices SUNX PLC

Use the connector applicable to the Panasonic Industrial Devices SUNX PLC.

For details, refer to the Panasonic Industrial Devices SUNX PLC user's manual.

Connecting terminating resistors

■GOT side

- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to disable.

- For GT2505-V, GT21, and GS21-W-N

Set the terminating resistor selector to 330 Ω .

- For GS21-W

Since the terminating resistor is fixed to 330 Ω , no setting is required for the terminating resistor.

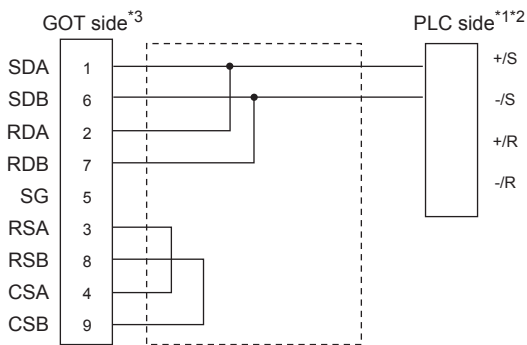
For details of terminating resistor settings, refer to the following.

☞ Page 62 Terminating resistors of GOT

RS-485 cable

Connection diagram

■RS-485 connection diagram 1)



*1 The details of the connection on the PLC are shown below.

Communication cassette: AFP7CCM1([RS-485] is selected), AFP7CCM2 of CH1([RS-485] is selected), AFP7CCM2 of CH2([RS-485] is selected)

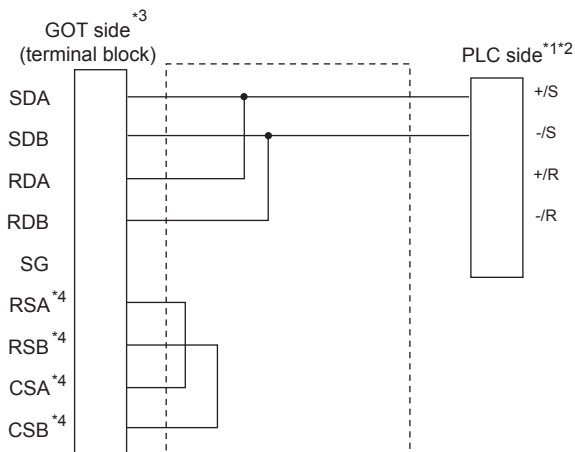
*2 Set the terminating resistor of the PLC to [ON].

*3 For the GOT side terminating resistor settings, refer to the following.

For GT27, GT25 (except GT2505-V), GT23, or GS25, set the terminating resistor to "Disable".

For GT2505-V, GT21, and GS21-W-N, set the terminating resistor to 110 Ω.

■RS-485 connection diagram 2)



*1 The details of the connection on the PLC are shown below.

Communication cassette: AFP7CCM1([RS-485] is selected), AFP7CCM2 of CH1([RS-485] is selected), AFP7CCM2 of CH2([RS-485] is selected)

*2 Set the terminating resistor of the PLC to [ON].

*3 Set the terminating resistor settings of the GOT side to "110Ω".

*4 The signals RSA, RSB, CSA, and CSB are not provided for GT2104-PMBD, GT2103-PMBD. Return connection is not required.

Precautions when preparing a cable

■Cable length

The length of the RS-485 cable must be 1200m or less.

■GOT side connector

For the GOT side connector, refer to the following.

☞ Page 58 GOT connector specifications

■Connector for Panasonic Industrial Devices SUNX PLC

Use the connector applicable to the Panasonic Industrial Devices SUNX PLC.

For details, refer to the Panasonic Industrial Devices SUNX PLC user's manual.

Connecting terminating resistors

■GOT side


- For GT27, GT25 (except GT2505-V), GT23, GS25

Set the terminating resistor setting switch of the GOT main unit to disable.

- For GT2505-V, GT21, and GS21-W-N

Set the terminating resistor selector to 110 Ω .

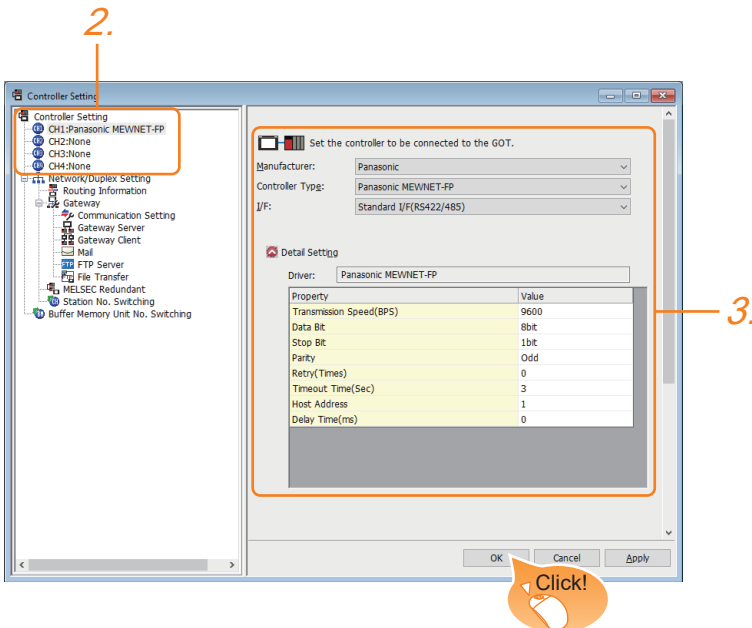
For details of terminating resistor settings, refer to the following.

 Page 62 Terminating resistors of GOT

15.4 GOT Side Settings

Setting communication interface (Communication settings)

Set the channel of the equipment to be connected to the GOT.



1. Select [Common] → [Controller Setting] from the menu.
2. In the [Controller Setting] window, select the channel No. to be used from the list menu.
3. Set the following items.
 - [Manufacturer]: [Panasonic]
 - [Controller Type]: Select one of the following items according to the controller to be connected.

When connecting to FP0/1/2/3/5, FP0H, FP-M, FPΣ, or FP-X: [Panasonic MEWNET-FP]

When connecting to FP7: [Panasonic FP7]

- [I/F]: Interface to be used
- [Detail Setting]: Configure the settings according to the usage environment.

☞ Page 586 Communication detail settings

4. When you have completed the settings, click the [OK] button.

Point

The settings of connecting equipment can be confirmed in [I/F Communication Setting].

For details, refer to the following.

☞ Page 48 I/F communication setting

Communication detail settings

Make the settings according to the usage environment.

[Panasonic MEWNET-FP]

| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8 bit |
| Stop Bit | 1 bit |
| Parity | Odd |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Host Address | 1 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|--------------------|---|---|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bits/8bits |
| Retry | Set the number of retries to be performed when a communication timeout occurs. When receiving no response after retries, the communication times out. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Host Address | Specify the host address (station No. of the PLC to which the GOT is connected) in the network of the GOT. (Default: 1) | 1 to 31 |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300 (ms) |

[Panasonic MEWTOCOL-7]


| Property | Value |
|-------------------------|-------|
| Transmission Speed(BPS) | 9600 |
| Data Bit | 8bit |
| Stop Bit | 1bit |
| Parity | Odd |
| Retry(Times) | 0 |
| Timeout Time(Sec) | 3 |
| Delay Time(ms) | 0 |

| Item | Description | Range |
|--------------------|---|---|
| Transmission Speed | Set this item when change the transmission speed used for communication with the connected equipment. (Default: 9600bps) | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data Bit | Set this item when change the data length used for communication with the connected equipment. (Default: 8bits) | 7bits/8bits |
| Retry | Set the number of retries to be performed when a communication timeout occurs. When receiving no response after retries, the communication times out. (Default: 0time) | 0 to 5times |
| Timeout Time | Set the time period for a communication to time out. (Default: 3sec) | 1 to 30sec |
| Delay Time | Set this item to adjust the transmission timing of the communication request from the GOT. (Default: 0ms) | 0 to 300 (ms) |

- Communication interface setting by the Utility

The communication interface setting can be changed on the Utility's [Communication Settings] after writing [Communication Settings] of project data.

For details on the Utility, refer to the following manual.

 GOT2000 Series User's Manual (Utility)

- Precedence in communication settings

When settings are made by GT Designer3 or the Utility, the latest setting is effective.

15.5 PLC Side Setting



Panasonic Industrial Devices SUNX PLC

For details of the Panasonic Industrial Devices SUNX PLC, refer to the following manual.

Panasonic Industrial Devices SUNX PLC user's Manual

Connecting to FP0/1/2/3/5, FP0H, FP-M, FPΣ, FP-X

Connecting to the tool port of the PLC CPU

| Item | Set value |
|----------------------|---|
| Transmission speed*1 | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data bit | 7bit, 8bit |
| Stop bit | 1bit |
| Parity bit | Odd |
| Modem connection | No |
| Module No. | 1 |

- *1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 585 Setting communication interface (Communication settings)
The setting range varies with the connected PLC.

Connecting to the RS232C and COM port of the PLC CPU

| Item | Set value |
|--------------------------------|---|
| Transmission speed*1 | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data bit | 7bit, 8bit |
| Stop bit | 1bit |
| Parity bit | Odd |
| Modem connection | No |
| Serial port action selection*2 | 1 (Computer link) |
| Module No. | 1 |

- *1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 585 Setting communication interface (Communication settings)
The setting range varies with the connected PLC.
- *2 Set when connecting to FP0, FP1, FP2 or FP-M.

Connecting to the computer communication unit

| Item | Set value |
|----------------------|----------------------------|
| Transmission speed*1 | 4800bps, 9600bps, 19200bps |
| Data bit | 7bit, 8bit |
| Stop bit | 1bit |
| Parity bit | Odd |
| Parity check | Yes |
| Control signal | Invalidate CS, CD |

- *1 Indicates only the transmission speeds that can be set on the GOT side.
Set the same transmission speed of the GOT.
For the transmission speed setting on the GOT side, refer to the following.
 Page 585 Setting communication interface (Communication settings)
The setting range varies with the connected PLC.

Connecting to the communication cassette

■Communication settings


Set the communication settings for the COM 1 port and COM2 port to connect GOT.

| Item | Set value |
|----------------------|---|
| Communication mode | Computer link |
| Transmission speed*1 | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Modem connection | No |
| Data bit | 7bit, 8bit |
| Parity check | Odd |
| Stop bit | 1bit |
| Unit No. | 1 |
| Port selection*2 | Communication cassette |

*1 Indicates only the transmission speeds that can be set on the GOT side.

Set the same transmission speed of the GOT.

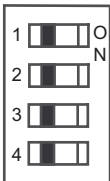
For the transmission speed setting on the GOT side, refer to the following.

 Page 585 Setting communication interface (Communication settings)

*2 Set the COM2 port only.

■Switch setting on the Communication cassette (AFPX-COM3)

Set the switch on the back.



| Switch No. | Setting | Setting details |
|------------|---------|--------------------------|
| 1 | OFF | RS422 |
| 2 | OFF | |
| 3 | OFF | |
| 4 | OFF | Terminating resistor OFF |

Connecting to FP7


Set the communication using the ladder software "FPWIN GR7".

Assign COM numbers to the CPU module's built-in SCU and communication cassette, and then set the communication settings.

| Item | Set value |
|-------------------------------------|---|
| Communication mode | MEWTOCOL7-COM |
| Station No. | 1 |
| Transmission speed ^{*1} | 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps |
| Data bit ^{*1} | 7bit, 8bit |
| Parity bit ^{*1} | Odd |
| Stop bit ^{*1} | 1bit |
| RS/CS | Invalid |
| Send wait time (Set value × 0.01ms) | 0 |
| Terminator code STX | Invalid |
| Termination setting | CR |
| Modem initialization | Do not initialize |

*1 Adjust the settings with GOT settings.

For the setting on the GOT side, refer to the following.

 Page 585 Setting communication interface (Communication settings)

15.6 Settable Device Range

For the device setting dialog and range of devices usable in the GOT, refer to the following.

☞ Page 701 PANASONIC IDS equipment ([Panasonic MEWNET-FP])

☞ Page 705 PANASONIC IDS equipment ([Panasonic FP7])

APPENDIX

Appendix 1 Settable Device Range

This section describes the range of devices settable in GT Designer3 for each of non-Mitsubishi Electric products connected to the GOT.

The settable range varies with the selection for [Controller Type] in the [Controller Setting] window.

Configure the device setting according to the specifications of the controller to be used.

Device specifications differ depending on the controller model even among the controllers of the same series.

If a non-existent device or a device number out of the range is set for an object, other objects for which correct devices are set may not be monitored.

- ☞ Page 594 IAI equipment ([IAI X-SEL Controller])
- ☞ Page 619 IAI equipment ([IAI ROBO CYLINDER])
- ☞ Page 629 AZBIL equipment ([Azbil SDC/DMC])
- ☞ Page 631 AZBIL equipment ([Azbil DMC50])
- ☞ Page 635 OMRON equipment ([OMRON SYSMAC])
- ☞ Page 639 OMRON equipment ([OMRON NJ/NX])
- ☞ Page 640 OMRON equipment ([OMRON THERMAC/INPANEL NEO])
- ☞ Page 644 OMRON equipment ([OMRON Digital Temperature Controller])
- ☞ Page 649 KEYENCE equipment ([KEYENCE KV-700/1000/3000/5000/7000/8000])
- ☞ Page 655 KOYO EI equipment ([KOYO KOSTAC/DL])
- ☞ Page 660 JTEKT equipment ([JTEKT TOYOPUC-PC])
- ☞ Page 665 SHARP equipment ([SHARP JW])
- ☞ Page 669 SHINKO equipment ([Shinko Technos Controller])
- ☞ Page 671 CHINO equipment ([CHINO MODBUS device])
- ☞ Page 674 TOSHIBA equipment ([TOSHIBA PROSEC T/V])
- ☞ Page 679 TOSHIBA equipment ([TOSHIBA Unified Controller nv])
- ☞ Page 683 SHIBAURA MACHINE equipment ([SHIBAURA MACHINE TCmini])
- ☞ Page 689 PANASONIC equipment ([Panasonic MINAS A4])
- ☞ Page 694 PANASONIC equipment ([Panasonic MINAS A5])
- ☞ Page 701 PANASONIC IDS equipment ([Panasonic MEWNET-FP])
- ☞ Page 705 PANASONIC IDS equipment ([Panasonic FP7])

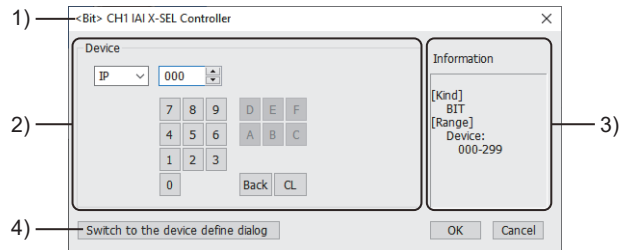
IAI equipment ([IAI X-SEL Controller])

GT 27
GT 25
GT 23
GT 21
GS 25
GS 21

| Item | Reference |
|--|---|
| Device setting dialog | ☞ Page 595 Device setting dialog ([IAI X-SEL Controller]) |
| Specifications of bit devices | ☞ Page 596 Monitoring-supported bit devices ([IAI X-SEL Controller]) |
| | ☞ Page 596 Availability of writing/reading data to/from bit devices ([IAI X-SEL Controller]) |
| Specifications of word devices | ☞ Page 597 Monitoring-supported word devices ([IAI X-SEL Controller]) |
| | ☞ Page 598 Axis Status device details ([IAI X-SEL Controller]) |
| | ☞ Page 600 Scara Axis Status device details ([IAI X-SEL Controller]) |
| | ☞ Page 602 Version device details ([IAI X-SEL Controller]) |
| | ☞ Page 603 Program Status device details ([IAI X-SEL Controller]) |
| | ☞ Page 604 System Status device details ([IAI X-SEL Controller]) |
| | ☞ Page 606 Servo device details ([IAI X-SEL Controller]) |
| | ☞ Page 606 Write to Flash ROM device details ([IAI X-SEL Controller]) |
| | ☞ Page 607 Return to Origin device details ([IAI X-SEL Controller]) |
| | ☞ Page 608 Point Number Movement device details ([IAI X-SEL Controller]) |
| | ☞ Page 609 Operation Stop/Cancel device details ([IAI X-SEL Controller]) |
| | ☞ Page 610 Availability of writing/reading data to/from word devices ([IAI X-SEL Controller]) |
| | Specifications of double-word devices |
| ☞ Page 612 Coordinate Affiliate Data device details ([IAI X-SEL Controller]) | |
| ☞ Page 613 Error Detail device details ([IAI X-SEL Controller]) | |
| ☞ Page 615 Point Data device details ([IAI X-SEL Controller]) | |
| ☞ Page 616 Simple Interference Check Zone Data device details ([IAI X-SEL Controller]) | |
| ☞ Page 617 Jogging/Inching Movement device details ([IAI X-SEL Controller]) | |
| ☞ Page 618 Availability of writing/reading data to/from double-word devices ([IAI X-SEL Controller]) | |

Device setting dialog ([IAI X-SEL Controller])

Set a device to be monitored.



1) Title

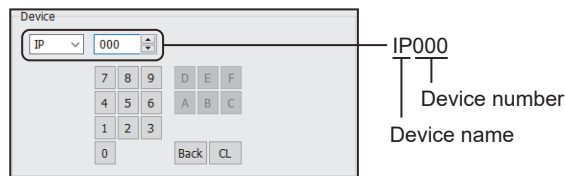
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of IP000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Switch to the device define dialog] button

You can open the device definition setting dialog to check the definition of the device.

For the details, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

Monitoring-supported bit devices ([IAI X-SEL Controller])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

Page 596 Availability of writing/reading data to/from bit devices ([IAI X-SEL Controller])

For the formats of devices, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | | |
|-------------|------------------|---------------------------|---|--------------------------------|-----------------------|---|
| | | | | Assignment to EG devices | Access using a client | |
| IP | Input Port | Decimal | 000 to 299 | ○ | × | |
| OP | Output Port | Decimal | 300 to 599 | ○ | × | |
| FG | Flag | Decimal | FG(Program No.):(Flag No.) Notation example: FG000:899 | ○ | × | |
| | | | Global area | | | <ul style="list-style-type: none"> • Program No. (decimal): 000 • Flag No. (decimal): 600 to 899 |
| | | | Local area | | | <ul style="list-style-type: none"> • Program No. (decimal): 001 to 128 • Flag No. (decimal): 900 to 999 |
| PCLR | Point Data Clear | Hexadecimal | 0001 to 4E20 | ○ | × | |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([IAI X-SEL Controller])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| IP | R/- | -/- | R/- | -/- | -/- |
| OP | R/W | -/- | R/W | -/- | -/- |
| FG | R/W | -/- | R/W | -/- | -/- |
| PCLR*1 | -/W | -/- | -/W | -/- | -/- |

*1 When a word device is specified, only 1 can be set for the rightmost digit of the device number.

Monitoring-supported word devices ([IAI X-SEL Controller])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.










 Page 610 Availability of writing/reading data to/from word devices ([IAI X-SEL Controller])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | | |
|-------------------|---|---------------------------|---|--------------------------------|-----------------------|--|
| | | | | Assignment to EG devices | Access using a client | |
| PDT | Point Data Total Count | Decimal | 0 | × | × | |
| STR | String | Decimal | STR(Program No.):(Variable No.) Notation example: STR000:998 | ○ | × | |
| | | | Global area | | | <ul style="list-style-type: none"> • Program No. (decimal): 000 • Variable No. (decimal): 300 to 998 (even numbers only) |
| | | | Local area | | | <ul style="list-style-type: none"> • Program No. (decimal): 001 to 128 • Variable No. (decimal): 001 to 299 (odd numbers only) |
| AXST | Axis Status | Hexadecimal |  Page 598 Axis Status device details ([IAI X-SEL Controller]) | ○ | × | |
| SAXS0 | Scara Axis Status 0 (Base coordinate system) | Hexadecimal |  Page 600 Scara Axis Status device details ([IAI X-SEL Controller]) | ○ | × | |
| SAXS1 | Scara Axis Status 1 (Selected work coordinate system) | Hexadecimal |  Page 600 Scara Axis Status device details ([IAI X-SEL Controller]) | ○ | × | |
| SAXS2 | Scara Axis Status 2 (Reserved for system use) | Hexadecimal |  Page 600 Scara Axis Status device details ([IAI X-SEL Controller]) | ○ | × | |
| SAXS3 | Scara Axis Status 3 (Each axis system) | Hexadecimal |  Page 600 Scara Axis Status device details ([IAI X-SEL Controller]) | ○ | × | |
| VR0 | Version 0 (Main CPU application) | Hexadecimal |  Page 602 Version device details ([IAI X-SEL Controller]) | ○ | × | |
| VR1 | Version 1 (Main CPU core) | Hexadecimal |  Page 602 Version device details ([IAI X-SEL Controller]) | ○ | × | |
| VR2 | Version 2 (Driver CPU) | Hexadecimal |  Page 602 Version device details ([IAI X-SEL Controller]) | ○ | × | |
| VR3 | Version 3 (Mount SIO) | Hexadecimal |  Page 602 Version device details ([IAI X-SEL Controller]) | ○ | × | |
| PGST | Program Status | Decimal |  Page 603 Program Status device details ([IAI X-SEL Controller]) | ○ | × | |
| SYST | System Status | Decimal |  Page 604 System Status device details ([IAI X-SEL Controller]) | ○ | × | |
| PRG ^{*2} | Program Control | Decimal | 000 to 128 | ○ | × | |
| AR | Alarm Reset | Decimal | 0 | × | × | |
| SR ^{*3} | Software Reset | Decimal | 0 | × | × | |
| DSR | Drive-Source Recovery | Decimal | 0 | × | × | |
| OPR | Operation-Pause Reset | Decimal | 0 | × | × | |
| SV ^{*4} | Servo | Decimal |  Page 606 Servo device details ([IAI X-SEL Controller]) | ○ | × | |
| FRW ^{*4} | Write to Flash ROM | Decimal |  Page 606 Write to Flash ROM device details ([IAI X-SEL Controller]) | ○ | × | |
| RO ^{*4} | Return to Origin | Decimal |  Page 607 Return to Origin device details ([IAI X-SEL Controller]) | ○ | × | |

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-----------------------|---------------------------|--|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| PNM*4 | Point Number Movement | Decimal | ☞ Page 608 Point Number Movement device details ([IAI X-SEL Controller]) | ○ | × |
| OSC*4 | Operation Stop/Cancel | Decimal | ☞ Page 609 Operation Stop/Cancel device details ([IAI X-SEL Controller]) | ○ | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

☞ GT Designer3 (GOT2000) Screen Design Manual

*2 For the program control device, the command to be sent differs depending on the write data.

Write data other than the followings are processed as an internal error of the GOT.

Write data 0: Program Exit Command (0x254)

Write data 1: Program Execution Command (0x253)

Write data 2: Program Pause Command (0x255)

Write data 3: Program 1 Step Execution Command (0x256)

Write data 4: Program Restart Command (0x257)

*3 When software reset is performed, a no response error is displayed after a non-communicating period of ten and several seconds, and then the communication is resumed.

*4 For the device whose obtained data No.0 is a command trigger, a request is sent to the controller when the Write or Read is input to the command trigger.

It is not sent when the Clear is input.

Axis Status device details ([IAI X-SEL Controller])

■Axis Status device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|-------------|---|
| Axis Status | AXST(Obtained data) Notation example: AXST00 |

The axis status device format includes the following elements.

| Item | Description | |
|---------------|---------------------------|--|
| Obtained data | Setting range | 00 to 2F |
| | Device No. representation | Hexadecimal |
| | Explanation | For the device definitions, refer to the following. ☞ Page 599 Axis Status device definition ([IAI X-SEL Controller]) |

■Axis Status device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|--|
| 00 | - |
| | Single-axis: Axis Status |
| | b0 |
| | Servo axis in use <ul style="list-style-type: none"> • 0: Not used • 1: In use (moving or others) <p>"Servo axis in use" indicates that a given task has the right to use the applicable axis. Therefore, this bit will turn on in the following conditions.</p> <ul style="list-style-type: none"> • When an operation command involving axis movement is in progress (including when an axis is moving) • Servo is starting up from an OFF state • Servo is shutting down from an ON state (excluding emergency stop) • Operation axis is paused |
| | b1 to b2 |
| | Return to Origin <ul style="list-style-type: none"> • 0: Not yet performed • 1: Returning to origin • 2: Completed |
| | b3 |
| | Servo <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b4 |
| | Operation command successful completion <ul style="list-style-type: none"> • 0: Not yet complete • 1: Completed successfully <p>This can be used only to check the completion of the operation command.</p> |
| | b5 |
| | Push error detection <ul style="list-style-type: none"> • 0: Not detected • 1: Detected |
| | b6 to b7 |
| | Reserved for system use |
| 01 | - |
| | Single-axis: Axis sensor input status |
| | b0 |
| | Creep sensor <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b1 |
| | Overrun sensor <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b2 |
| | Origin sensor <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b3 |
| | Reserved for system use |
| 02 | - |
| | Single-axis: Axis error code |
| 03 | - |
| | Single-axis: Encoder status |
| | b0 |
| | Overspeed (OS) |
| | b1 |
| | Full absolute status (FS) |
| | b2 |
| | Count error (CE) |
| | b3 |
| | Counter overflow (OF) |
| | b4 |
| | Reserved for system use |
| | b5 |
| | Multi-rotation error (ME) |
| | b6 |
| | Battery error (BE) |
| | b7 |
| | Battery alarm (BA) |
| 04 | - |
| | Single-axis: Current position (lower 16 bits) unit (0.001 mm) Indicates the lower 16 bits of the current position in hexadecimal. |
| 05 | - |
| | Single-axis Current position (upper 16 bits) unit (0.001 mm) Indicates the upper 16 bits of the current position in hexadecimal. |
| 06 to 0B | - |
| | Double axes data For the device definitions, refer to the definitions of the single-axis status (00 to 05). |
| : | : |
| 2A to 2F | - |
| | Eight axes status For the device definitions, refer to the definitions of the single-axis status (00 to 05). |

Scara Axis Status device details ([IAI X-SEL Controller])

■ Scara Axis Status device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|---|---|
| Scara Axis Status 0 (Base coordinate system) | SAXS0(Obtained data) Notation example: SAXS004 |
| Scara Axis Status 1 (Selected work coordinate system) | SAXS1(Obtained data) Notation example: SAXS104 |
| Scara Axis Status 2 (Reserved for system use) | SAXS2(Obtained data) Notation example: SAXS204 |
| Scara Axis Status 3 (Each axis system) | SAXS3(Obtained data) Notation example: SAXS304 |

The SCARA axis status device formats include the following elements.

| Item | Description | |
|---------------|---------------------------|--|
| Obtained data | Setting range | 00 to FF |
| | Device No. representation | Hexadecimal |
| | Explanation | For the device definitions, refer to the following. ☞ Page 600 Scara Axis Status device definition ([IAI X-SEL Controller]) |

■ Scara Axis Status device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|--|
| 00 | Work coordinate system selection number |
| 01 | Tool coordinate system selection number |
| 02 | Common axis status |
| b0 to b1 | Scara axis current arm system <ul style="list-style-type: none"> • 0: Base coordinate system • 1: Selected work coordinate system • 2: Reserved for system use • 3: Each axis system |
| b2 to b3 | Scara axis current position coordinate system type <ul style="list-style-type: none"> • 0: Right arm system • 1: Left arm system • 2: Indeterminable • 3: Reserved for system use |
| b4 to b7 | Reserved for system use |
| 03 | Axis pattern <div style="text-align: center;"> <p>Bit - 7 6 5 4 3 2 1 0</p> <p>1st axis</p> <p>8th axis</p> <p>Reserved for system use</p> </div> |

| Obtained data | Device definition |
|---------------|--|
| 04 | - |
| | Single-axis: Axis Status |
| | b0 |
| | Servo axis in use <ul style="list-style-type: none"> • 0: Not used • 1: In use (moving or others) <p>"Servo axis in use" indicates that a given task has the right to use the applicable axis. Therefore, this bit will turn on in the following conditions.</p> <ul style="list-style-type: none"> • When an operation command involving axis movement is in progress (including when an axis is moving) • Servo is starting up from an OFF state • Servo is shutting down from an ON state (excluding emergency stop) • Operation axis is paused |
| | b1 to b2 |
| | Return to Origin <ul style="list-style-type: none"> • 0: Not yet performed • 1: Returning to origin • 2: Completed |
| | b3 |
| | Servo <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b4 |
| | Operation command successful completion <ul style="list-style-type: none"> • 0: Not yet complete • 1: Completed successfully <p>This can be used only to check the completion of the operation command.</p> <p>For positioning that includes any of the X, Y and R axes, make sure to check completion for all of the X, Y and R axes.</p> |
| | b5 |
| | Push error detection <ul style="list-style-type: none"> • 0: Not detected • 1: Detected |
| | b6 to b7 |
| | Reserved for system use |
| 05 | - |
| | Single-axis: Axis sensor input status |
| | b0 |
| | Creep sensor <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b1 |
| | Overrun sensor <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b2 |
| | Origin sensor <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b3 |
| | Reserved for system use |
| 06 | - |
| | Single-axis: Axis error code |
| 07 | - |
| | Single-axis: Encoder status |
| | b0 |
| | Overspeed (OS) |
| | b1 |
| | Full absolute status (FS) |
| | b2 |
| | Count error (CE) |
| | b3 |
| | Counter overflow (OF) |
| | b4 |
| | Reserved for system use |
| | b5 |
| | Multi-rotation error (ME) |
| | b6 |
| | Battery error (BE) |
| | b7 |
| | Battery alarm (BA) |
| 08 | - |
| | Single-axis: Current position (lower 16 bits) unit (0.001 mm or 0.001 deg) Indicates the lower 16 bits of the current position in hexadecimal. |
| 09 | - |
| | Single-axis: Current position (upper 16 bits) unit (0.001 mm or 0.001 deg) Indicates the upper 16 bits of the current position in hexadecimal. |
| 0A to 0F | - |
| | Double axes data For the device definitions, refer to the definitions of the single-axis status (04 to 09). |
| : | : |
| 2E to 33 | - |
| | Eight axes data For the device definitions, refer to the definitions of the single-axis status (04 to 09). |
| 34 to FF | - |
| | Reserved for system use |



Version device details ([IAI X-SEL Controller])

■Version device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|----------------------------------|---|
| Version 0 (Main CPU application) | VR0(Device No.);(Obtained data) Notation example: VR0F:0 |
| Version 1 (Main CPU core) | VR1(Device No.);(Obtained data) Notation example: VR1F:0 |
| Version 2 (Driver CPU) | VR2(Device No.);(Obtained data) Notation example: VR2F:0 |
| Version 3 (Mount SIO) | VR3(Device No.);(Obtained data) Notation example: VR3F:0 |

The version device formats include the following elements.

| Item | Description | |
|---------------|---------------------------|--|
| Device No. | Setting range | 0 to F |
| | Device No. representation | Hexadecimal |
| Obtained data | Setting range | 0 to F |
| | Device No. representation | Hexadecimal |
| | Explanation | For the device definitions, refer to the following. Page 602 Version device definition ([IAI X-SEL Controller]) |

■Version device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|-------------------------|
| 0 | Model code |
| 1 | Unit code |
| 2 | Version number |
| 3 | Time (year) |
| 4 | Time (month) |
| 5 | Time (day) |
| 6 | Time (hour) |
| 7 | Time (min) |
| 8 | Time (sec) |
| 9 to F | Reserved for system use |


Program Status device details ([IAI X-SEL Controller])

■Program Status device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|----------------|---|
| Program Status | PGST (Obtained data) Notation example: PGST000 |

The program status format includes the following elements.

| Item | Description | |
|---------------|---------------------------|---|
| Obtained data | Setting range | 000 to 511 |
| | Device No. representation | Decimal |
| | Explanation | For the device definitions, refer to the following.  Page 603 Program Status device definition ([IAI X-SEL Controller]) |

■Program Status device definition ([IAI X-SEL Controller])

| Obtained data | Device definition | |
|---------------|-------------------|--|
| 000 | - | Program number 1: Status |
| | b0 | Startup <ul style="list-style-type: none"> • 0: Not started • 1: Started |
| | b1 to b3 | Reserved for system use |
| 001 | | Program number 1: Execution program step number |
| 002 | | Program number 1: Program-dependent error code |
| 003 | | Program number 1: Error occurrence step number |
| 004 to 007 | | Data of program number 2 For the device definitions, refer to the definitions of Program number 1 (000 to 003). |
| : | | : |
| 508 to 511 | | Data of program number 128 For the device definitions, refer to the definitions of Program number 1 (000 to 003). |

System Status device details ([IAI X-SEL Controller])

■System Status device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|---------------|--|
| System Status | SYST(Obtained data) Notation example: SYST0 |

The system status device format includes the following elements.

| Item | Description |
|---------------|---------------------------|
| Obtained data | Setting range |
| | Device No. representation |
| | Explanation |

0 to 6
Decimal
For the device definitions, refer to the following.
Page 604 System Status device definition ([IAI X-SEL Controller])

■System Status device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|---|
| 0 | System mode <ul style="list-style-type: none"> 0: Indeterminable 1: AUTO mode 2: MANUAL mode 3: Slave update mode 4: Core update mode |
| 1 | Critical level system error number |
| 2 | Latest system error number |
| 3 | - |
| b0 | System status byte 1 Operation mode switch status <ul style="list-style-type: none"> 0: AUTO 1: MANUAL |
| b1 | TP enable switch status <ul style="list-style-type: none"> 0: ON 1: OFF X-SEL (P/Q series) (Multi axes/Scara) / SSEL / ASEL / PSEL: This bit is disabled (fixed to 0). |
| b2 | Safety gate status <ul style="list-style-type: none"> 0: CLOSE 1: OPEN X-SEL (P/Q series) (Multi axes/Scara) / SSEL / ASEL / PSEL: This bit indicates the status of the enable switch or deadman switch. |
| b3 | Emergency stop switch status <ul style="list-style-type: none"> 0: No emergency stop 1: Emergency stop |
| b4 | Power error status <ul style="list-style-type: none"> 0: Normal 1: Error |
| b5 | Battery voltage low warning status <ul style="list-style-type: none"> 0: Not low 1: Low |
| b6 | Battery voltage error status <ul style="list-style-type: none"> 0: No error 1: Error |
| b7 | Reserved for system use |

| Obtained data | Device definition |
|---------------|---|
| 4 | - |
| | System status byte 2 |
| | b0 |
| | Application data flash ROM write status <ul style="list-style-type: none"> • 0: Not writing/erasing • 1: Writing/erasing When the core program is in operation (Application update mode), only Bit 0 is enabled. Data for System mode, Critical level system error number, Latest system error number, System status byte 1, System status byte 3 and System status byte 4 is disabled. |
| | b1 |
| | Slave parameter writing status <ul style="list-style-type: none"> • 0: Not writing • 1: Writing |
| | b2 |
| | Servo interlock status <ul style="list-style-type: none"> • 0: No interlock • 1: Interlock |
| | b3 |
| | I/O interlock status <ul style="list-style-type: none"> • 0: No interlock • 1: Interlock |
| | b4 |
| | Restart wait status <ul style="list-style-type: none"> • 0: Not waiting • 1: Waiting |
| | b5 |
| | Program run status <ul style="list-style-type: none"> • 0: Not run • 1: Running |
| | b6 to b7 |
| | Reserved for system use |
| 5 | - |
| | System status byte 3 |
| | b0 |
| | Drive-source cutoff status <ul style="list-style-type: none"> • 0: Not cut off • 1: Cut off |
| | b1 |
| | System operation status <ul style="list-style-type: none"> • 0: Not operating in AUTO mode • 1: Operating in AUTO mode |
| | b2 |
| | System ready status <ul style="list-style-type: none"> • 0: Not ready • 1: Ready |
| | b3 |
| | Reserved for system use |
| | b4 |
| | Operation mode <ul style="list-style-type: none"> • 0: Program mode • 1: Position mode |
| | b5 to b7 |
| | Reserved for system use |
| 6 | |
| | System status byte 4 Reserved for system use |



Servo device details ([IAI X-SEL Controller])

■ Servo device format ([IAI X-SEL Controller])

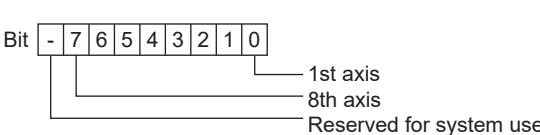
The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|-------------|--|
| Servo | SV(Obtained data) Notation example: SV0 |

The servo device format includes the following elements.

| Item | Description | |
|---------------|---------------------------|--|
| Obtained data | Setting range | 0 to 2 |
| | Device No. representation | Decimal |
| | Explanation | For the device definitions, refer to the following. Page 606 Servo device definition ([IAI X-SEL Controller]) |

■ Servo device definition ([IAI X-SEL Controller])

| Obtained data | Device definition | |
|---------------|--|--|
| 0 | Servo: Command trigger <ul style="list-style-type: none"> • 1: Write • 4: Clear | |
| 1 | Servo: Axis pattern  | |
| 2 | - | Servo: Operation type |
| | b0 | Servo ON/OFF <ul style="list-style-type: none"> • 0: OFF • 1: ON |
| | b1 to b3 | Reserved for system use Fixed to 0 |

Write to Flash ROM device details ([IAI X-SEL Controller])

■ Write to Flash ROM device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|--------------------|--|
| Write to Flash ROM | FRW(Obtained data) Notation example: FRW0 |

The write to flash ROM device format includes the following elements.

| Item | Description | |
|---------------|---------------------------|---|
| Obtained data | Setting range | 0 to 1 |
| | Device No. representation | Decimal |
| | Explanation | For the device definitions, refer to the following. Page 606 Write to Flash ROM device definition ([IAI X-SEL Controller]) |

■ Write to Flash ROM device definition ([IAI X-SEL Controller])

| Obtained data | Device definition | |
|---------------|--|--|
| 0 | Write to Flash ROM: Command trigger <ul style="list-style-type: none"> • 1: Write | |
| 1 | Reserved for system use | |


Return to Origin device details ([IAI X-SEL Controller])

Return to Origin device format ([IAI X-SEL Controller])

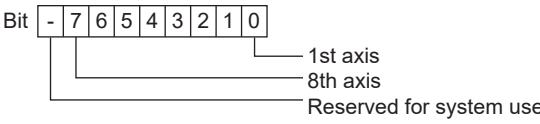
The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|------------------|--|
| Return to Origin | RO(Obtained data) Notation example: RO0 |

The return to origin device format includes the following elements.

| Item | Description | |
|---------------|---------------------------|---|
| Obtained data | Setting range | 0 to 3 |
| | Device No. representation | Decimal |
| | Explanation | For the device definitions, refer to the following.  Page 607 Return to Origin device definition ([IAI X-SEL Controller]) |

Return to Origin device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|---|
| 0 | Return to Origin: Command trigger <ul style="list-style-type: none"> • 1: Write • 4: Clear |
| 1 | Return to Origin: Axis pattern For the XSEL-JX/KX/KTX/PX/QX series controller, specify a linear drive axis only. <div style="text-align: center; margin-top: 10px;">  </div> |
| 2 | Return to Origin: End search speed unit (mm/sec) When it is zero, the parameter value is enabled. |
| 3 | Return to Origin: Creep speed unit (mm/sec) When it is zero, the parameter value is enabled. |

Point Number Movement device details ([IAI X-SEL Controller])


■Point Number Movement device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

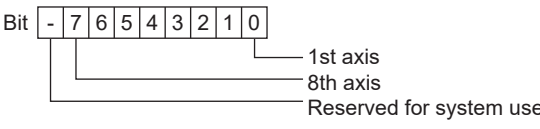
| Device name | Format |
|-----------------------|--|
| Point Number Movement | PNM(Obtained data) Notation example: PNM0 |

The point number movement device format includes the following elements.

| Item | Description |
|---------------|---------------------------|
| Obtained data | Setting range |
| | Device No. representation |
| | Explanation |

0 to 5
Decimal
For the device definitions, refer to the following.
 Page 608 Point Number Movement device definition ([IAI X-SEL Controller])

■Point Number Movement device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|---|
| 0 | Point Number Movement: Command trigger <ul style="list-style-type: none"> • 1: Write • 4: Clear |
| 1 | Point Number Movement: Axis pattern  |
| 2 | Point Number Movement: Acceleration unit (0.01 G) When the setting value of the acceleration is zero, the relevant setting value of the position data is effective. When the setting value of the acceleration and the relevant setting value are both zero, the parameter value is effective. |
| 3 | Point Number Movement: Deceleration unit (0.01 G) When the setting value of the deceleration is zero, the relevant setting value of the position data is effective. When the setting value of the deceleration and the relevant setting value are both zero, the parameter value is effective. |
| 4 | Point Number Movement: Speed unit (mm/sec) When the setting value of the speed is zero, the relevant setting value of the position data is effective. When the setting value of the speed and the relevant setting value are both zero, the parameter value is effective. The safety limit value is applied depending on the mode. |
| 5 | Point Number Movement: Point number |


Operation Stop/Cancel device details ([IAI X-SEL Controller])

■ Operation Stop/Cancel device format ([IAI X-SEL Controller])

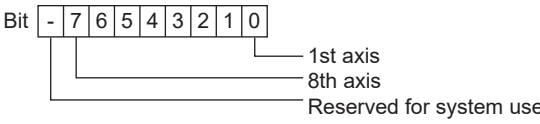
The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|-----------------------|--|
| Operation Stop/Cancel | OSC(Obtained data) Notation example: OSC0 |

The operation stop/cancel device format includes the following elements.

| Item | Description | |
|---------------|---------------------------|--|
| Obtained data | Setting range | 0 to 2 |
| | Device No. representation | Decimal |
| | Explanation | For the device definitions, refer to the following.  Page 609 Operation Stop/Cancel device definition ([IAI X-SEL Controller]) |

■ Operation Stop/Cancel device definition ([IAI X-SEL Controller])

| Obtained data | Device definition | |
|---------------|---|---|
| 0 | Operation Stop/Cancel: Command trigger <ul style="list-style-type: none"> • 1: Write • 4: Clear | |
| 1 | Operation Stop/Cancel: Stop axis pattern Including during-interlock-pending servo command cancellation <div style="text-align: center;">  </div> | |
| 2 | - | Operation Stop/Cancel: Additional command |
| | b0 | During-interlock-pending output (out port) (during all operation pause) cancellation instruction <ul style="list-style-type: none"> • 0: Non-cancellation • 1: Temporary cancellation |
| | b1 to b7 | Reserved for system use Fixed to 0 |

A

Availability of writing/reading data to/from word devices ([IAI X-SEL Controller])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| PDT | R/- | -/- | -/- | -/- |
| STR | R/W | -/- | -/- | -/- |
| AXST | R/- | -/- | -/- | -/- |
| SAXS0 | R/- | -/- | -/- | -/- |
| SAXS1 | R/- | -/- | -/- | -/- |
| SAXS2 | R/- | -/- | -/- | -/- |
| SAXS3 | R/- | -/- | -/- | -/- |
| VR0 | R/- | -/- | -/- | -/- |
| VR1 | R/- | -/- | -/- | -/- |
| VR2 | R/- | -/- | -/- | -/- |
| VR3 | R/- | -/- | -/- | -/- |
| PGST | R/- | -/- | -/- | -/- |
| SYST | R/- | -/- | -/- | -/- |
| PRG | -/W | -/- | -/- | -/- |
| AR | -/W | -/- | -/- | -/- |
| SR | -/W | -/- | -/- | -/- |
| DSR | -/W | -/- | -/- | -/- |
| OPR | -/W | -/- | -/- | -/- |
| SV | R/W | -/- | -/- | -/- |
| FRW | -/W | -/- | -/- | -/- |
| RO | R/W | -/- | -/- | -/- |
| PNM | R/W | -/- | -/- | -/- |
| OSC | R/W | -/- | -/- | -/- |


Monitoring-supported double-word devices ([IAI X-SEL Controller])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.













 Page 618 Availability of writing/reading data to/from double-word devices ([IAI X-SEL Controller])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | | |
|-------------|--|---------------------------|--|--------------------------------|-----------------------|--|
| | | | | Assignment to EG devices | Access using a client | |
| CD0 | Coordinate Affiliate Data 0 (Work coordinate system definition data) | Hexadecimal |  Page 612 Coordinate Affiliate Data device details ([IAI X-SEL Controller]) | × | × | |
| CD1 | Coordinate Affiliate Data 1 (Tool coordinate system definition data) | Hexadecimal |  Page 612 Coordinate Affiliate Data device details ([IAI X-SEL Controller]) | × | × | |
| INT | Integer | Decimal | INT(Program No.):(Variable No.) Notation example: INT128:0200 | × | × | |
| | | | Global area | | | <ul style="list-style-type: none"> • Program No. (decimal): 000 • Variable No. (decimal): 0200 to 0299 , 1200 to 1299 |
| | | | Local area | | | <ul style="list-style-type: none"> • Program No. (decimal): 001 to 128 • Variable No. (decimal): 0001 to 0099 , 1001 to 1099 |
| RL | Real | Decimal | RL(Program No.):(Variable No.) Notation example: RL000:1399 | × | × | |
| | | | Global area | | | <ul style="list-style-type: none"> • Program No. (decimal): 000 • Variable No. (decimal): 0300 to 0399, 1300 to 1399 |
| | | | Local area | | | <ul style="list-style-type: none"> • Program No. (decimal): 001 to 128 • Variable No. (decimal): 0100 to 0199, 1100 to 1199 |
| ER0 | Error Detail 0 (System error) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| ER1 | Error Detail 1 (Axis-specific error) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| ER2 | Error Detail 2 (Program-specific error) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| ER3 | Error Detail 3 (Error in error list record) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| ER4 | Error Detail 4 (Reserved for system use) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| ER5 | Error Detail 5 (Reserved for system use) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| ER6 | Error Detail 6 (Reserved for system use) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| ER7 | Error Detail 7 (Reserved for system use) | Hexadecimal |  Page 613 Error Detail device details ([IAI X-SEL Controller]) | × | × | |
| PD | Point Data | Hexadecimal |  Page 615 Point Data device details ([IAI X-SEL Controller]) | × | × | |
| SD | Simple Interference Check Zone Data | Hexadecimal |  Page 616 Simple Interference Check Zone Data device details ([IAI X-SEL Controller]) | × | × | |

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|--------------------------|---------------------------|---|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| JIM | Jogging/Inching Movement | Decimal | ☞ Page 617 Jogging/Inching Movement device details ([IAI X-SEL Controller]) | x | x |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

☞ GT Designer3 (GOT2000) Screen Design Manual

*2 For the device whose obtained data No.0 is a command trigger, a request is sent to the controller when the Write or Read is input to the command trigger.

It is not sent when the Clear is input.

Coordinate Affiliate Data device details ([IAI X-SEL Controller])

■Coordinate Affiliate Data device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|--|---|
| Coordinate Affiliate Data 0 (Work coordinate system definition data) | CD0(Definition data No.):(Obtained data) Notation example: CD0FF:0 |
| Coordinate Affiliate Data 1 (Tool coordinate system definition data) | CD1(Definition data No.):(Obtained data) Notation example: CD1FF:0 |

The Coordinate Affiliate Data device formats include the following elements.

| Item | Description | |
|------------------------|---------------------------|--|
| Definition data number | Setting range | 00 to FF |
| | Device No. representation | Hexadecimal |
| Obtained data | Setting range | 0 to F |
| | Device No. representation | Hexadecimal |
| | Explanation | For the device definitions, refer to the following. ☞ Page 612 Coordinate Affiliate Data device definition ([IAI X-SEL Controller]) |

■Coordinate Affiliate Data device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|--------------------------|
| 0 | X axis coordinate offset |
| 1 | Y axis coordinate offset |
| 2 | Z axis coordinate offset |
| 3 | R axis coordinate offset |
| 4 to F | Reserved for system use |


Error Detail device details ([IAI X-SEL Controller])

■Error Detail device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|---|--|
| Error Detail 0 (System error) | ER0(Type2):(Reserved for system use):(Obtained data) Notation example: ER0FF:000:00 |
| Error Detail 1 (Axis-specific error) | ER1(Type2):(Reserved for system use):(Obtained data) Notation example: ER1FF:000:00 |
| Error Detail 2 (Program-specific error) | ER2(Type2):(Reserved for system use):(Obtained data) Notation example: ER2FF:000:00 |
| Error Detail 3 (Error in error list record) | ER3(Type2):(Reserved for system use):(Obtained data) Notation example: ER3FF:000:00 |
| Error Detail 4 (Reserved for system use) | ER4(Type2):(Reserved for system use):(Obtained data) Notation example: ER4FF:000:00 |
| Error Detail 5 (Reserved for system use) | ER5(Type2):(Reserved for system use):(Obtained data) Notation example: ER5FF:000:00 |
| Error Detail 6 (Reserved for system use) | ER6(Type2):(Reserved for system use):(Obtained data) Notation example: ER6FF:000:00 |
| Error Detail 7 (Reserved for system use) | ER7(Type2):(Reserved for system use):(Obtained data) Notation example: ER7FF:000:00 |

The Error Detail device formats include the following elements.

| Item | Description | | |
|-------------------------|---------------------------|---|--|
| Type 2 | Setting range | 00 to FF | |
| | Device No. representation | Hexadecimal | |
| | Explanation | System error | <ul style="list-style-type: none"> • 0: Critical level error • 1: Latest error |
| | | Axis-specific error: Axis number | |
| | | Program-specific error: Program number | |
| | | Error in error list record: Record number (1 or later) | |
| Reserved for system use | Setting range | 000 | |
| | Device No. representation | Hexadecimal | |
| Obtained data | Setting range | 00 to FF | |
| | Device No. representation | Hexadecimal | |
| | Explanation | For the device definitions, refer to the following.  Page 614 Error Detail device definition ([IAI X-SEL Controller]) | |

■Error Detail device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|---|
| 00 | Error No. |
| 01 | Detail information 1 Other than system-down level error: Program number (Error source is indicated if the step number is not 0.) System-down level error: System down type |
| 02 | Detail information 2 Other than system-down level error: Step number (Error source) System-down level error: System down error code |
| 03 | Detail information 3 Other than system-down level error: Axis number System-down level error: System down information 1 |
| 04 | Detail information 4 Other than system-down level error: Point number (Negative value at interpolation point) System-down level error: System down information 2 |
| 05 | Detail information 5 |
| 06 | Detail information 6 |
| 07 | Detail information 7 |
| 08 | Detail information 8 |
| 09 | Message bytes |
| 0A | Message 1 |
| 0B | Message 2 |
| : | : |
| 49 | Message 64 |
| 50 to FF | Reserved for system use |


Point Data device details ([IAI X-SEL Controller])

■Point Data device format ([IAI X-SEL Controller])

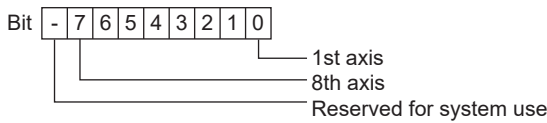
The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|-------------|---|
| Point Data | PD(Obtained data) Notation example: PD00 |

The Point Data device format includes the following elements.

| Item | Description | |
|---------------|---------------------------|---|
| Obtained data | Setting range | 00 to 9E |
| | Device No. representation | Hexadecimal |
| | Explanation | For the device definitions, refer to the following.  Page 615 Point Data device definition ([IAI X-SEL Controller]) |

■Point Data device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|---|
| 00 | Point Data: Command trigger <ul style="list-style-type: none"> • 1: Write • 2: Read • 4: Clear |
| 01 | Point Data: Starting point number |
| 02 | Point Data: Number of point data |
| 03 | Point Data 1: Point number |
| 04 | Point Data 1: Axis pattern <div style="text-align: center;">  </div> |
| 05 | Point Data 1: Acceleration unit (0.01 G) |
| 06 | Point Data 1: Deceleration unit (0.01 G) |
| 07 | Point Data 1: Speed unit (mm/sec) |
| 08 | Point Data 1: 1st axis position data unit (0.001 mm) |
| 09 | Point Data 1: 2nd axis position data unit (0.001 mm) |
| 0A | Point Data 1: 3rd axis position data unit (0.001 mm) |
| 0B | Point Data 1: 4th axis position data unit (0.001 mm) |
| 0C | Point Data 1: 5th axis position data unit (0.001 mm) |
| 0D | Point Data 1: 6th axis position data unit (0.001 mm) |
| 0E | Point Data 1: 7th axis position data unit (0.001 mm) |
| 0F | Point Data 1: 8th axis position data unit (0.001 mm) |
| 10 to 1C | Data of Point Data 2 For the device definition, refer to the definition of Point Data 1 (03 to 0F). |
| : | : |
| 92 to 9E | Data of Point Data 12 For the device definition, refer to the definition of Point Data 1 (03 to 0F). |


Simple Interference Check Zone Data device details ([IAI X-SEL Controller])

■ Simple Interference Check Zone Data device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|-------------------------------------|--|
| Simple Interference Check Zone Data | SD(Definition data No.):(Obtained data) Notation example: SDF:0 |

The Simple Interference Check Zone Data device format includes the following elements.

| Item | Description | |
|------------------------|---------------------------|--|
| Definition data number | Setting range | 01 to FF |
| | Device No. representation | Hexadecimal |
| Obtained data | Setting range | 0 to F |
| | Device No. representation | Hexadecimal |
| | Explanation | For the device definitions, refer to the following.  Page 616 Simple Interference Check Zone Data device definition ([IAI X-SEL Controller]) |

■ Simple Interference Check Zone Data device definition ([IAI X-SEL Controller])

| Obtained data | Device definition |
|---------------|--|
| 0 | Effective axis pattern |
| 1 | Simple interference check zone definition coordinate 1 X axis unit (0.001 mm (R axis: 0.001 deg)) |
| 2 | Simple interference check zone definition coordinate 1 Y axis unit (0.001 mm (R axis: 0.002 deg)) |
| 3 | Simple interference check zone definition coordinate 1 Z axis unit (0.001 mm (R axis: 0.003 deg)) |
| 4 | Simple interference check zone definition coordinate 1 R axis unit (0.001 mm (R axis: 0.004 deg)) |
| 5 | Simple interference check zone definition coordinate 2 X axis unit (0.001 mm (R axis: 0.001 deg)) |
| 6 | Simple interference check zone definition coordinate 2 Y axis unit (0.001 mm (R axis: 0.002 deg)) |
| 7 | Simple interference check zone definition coordinate 2 Z axis unit (0.001 mm (R axis: 0.003 deg)) |
| 8 | Simple interference check zone definition coordinate 2 R axis unit (0.001 mm (R axis: 0.004 deg)) |
| 9 | Physical output port number or global flag number for output upon entry |
| A | Entry error type specification <ul style="list-style-type: none"> • 0: No error handling • 1: Message-level error • 2: Operation-cancellation level error |
| B to F | Reserved for system use |

Jogging/Inching Movement device details ([IAI X-SEL Controller])

■Jogging/Inching Movement device format ([IAI X-SEL Controller])

The following shows the format in the setting dialog of an object or others.

| Device name | Format |
|--------------------------|--|
| Jogging/Inching Movement | JIM(Obtained data) Notation example: JIM0 |

The Jogging/Inching Movement device format includes the following elements.

| Item | Description |
|---------------|---------------------------|
| Obtained data | Setting range |
| | Device No. representation |
| | Explanation |

0 to 6
Decimal
For the device definitions, refer to the following.
Page 617 Jogging/Inching Movement device definition ([IAI X-SEL Controller])

■Jogging/Inching Movement device definition ([IAI X-SEL Controller])

| Obtained data | Device definition | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|
| 0 | Jogging/Inching Movement: Command trigger • 1: Write • 4: Clear | | | | | | | | | |
| 1 | Jogging/Inching Movement: Axis pattern For SCARA controllers, only one SCARA axis can be specified. (Multiple axes cannot be specified.) For SCARA controllers, jog/inch commands are available only when all SCARA servo axes are in non-operating state. For X-SEL-PX/QX/RX/SX controllers, simultaneous specification of SCARA and linear drive axes is prohibited. <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Bit</div> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="width: 15px;">-</td> <td style="width: 15px;">7</td> <td style="width: 15px;">6</td> <td style="width: 15px;">5</td> <td style="width: 15px;">4</td> <td style="width: 15px;">3</td> <td style="width: 15px;">2</td> <td style="width: 15px;">1</td> <td style="width: 15px;">0</td> </tr> </table> <div style="margin-left: 10px;"> <p>1st axis</p> <p>8th axis</p> <p>Reserved for system use</p> </div> </div> | - | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| - | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | |
| 2 | Jogging/Inching Movement: Acceleration unit (0.01 G (% for each axis)) When it is zero, the parameter value is enabled. | | | | | | | | | |
| 3 | Jogging/Inching Movement: Deceleration unit (0.01 G (% for each axis)) When it is zero, the parameter value is enabled. | | | | | | | | | |
| 4 | Jogging/Inching Movement: Speed unit (mm/sec (% for each axis)) When it is zero, the parameter value is enabled. (The safety limit value is applied depending on the mode.) | | | | | | | | | |
| 5 | Jogging/Inching Movement: Inch distance unit (0.001 mm (0.001 deg for each axis)) An absolute value is specified. When it is zero, no distance is specified (= Jog). | | | | | | | | | |
| 6 | - | | | | | | | | | |
| | b0 | | | | | | | | | |
| | b1 to b2 | | | | | | | | | |
| | b3 | | | | | | | | | |

Jogging/Inching Movement: Operation type

Jog/inch direction
• 0: Coordinate - Direction
• 1: Coordinate + Direction

Jog/inch movement coordinate system (dedicated to SCARA)
• 0: Base coordinate system
• 1: Selected work coordinate system
• 2: Selected work coordinate system
• 3: Each axis system

Reserved for system use
Fixed to 0

A

Availability of writing/reading data to/from double-word devices ([IAI X-SEL Controller])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| CD0 | -/- | R/- | -/- | -/- |
| CD1 | -/- | R/- | -/- | -/- |
| INT | -/- | R/W | -/- | -/- |
| RL | -/- | R/W | -/- | -/- |
| ER0 | -/- | R/- | -/- | -/- |
| ER1 | -/- | R/- | -/- | -/- |
| ER2 | -/- | R/- | -/- | -/- |
| ER3 | -/- | R/- | -/- | -/- |
| ER4 | -/- | R/- | -/- | -/- |
| ER5 | -/- | R/- | -/- | -/- |
| ER6 | -/- | R/- | -/- | -/- |
| ER7 | -/- | R/- | -/- | -/- |
| PD | -/- | R/W | -/- | -/- |
| SD | -/- | R/- | -/- | -/- |
| JIM | -/- | R/W | -/- | -/- |

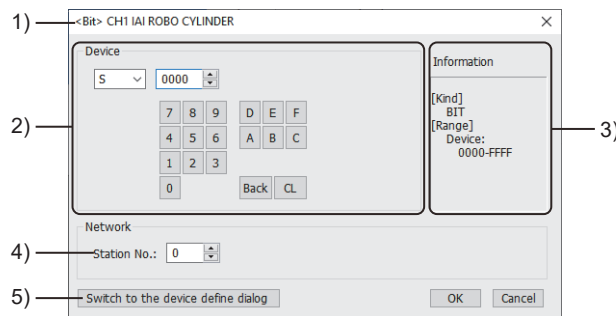
IAI equipment ([IAI ROBO CYLINDER])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|--------------------------------|--|
| Device setting dialog | ☞ Page 619 Device setting dialog ([IAI ROBO CYLINDER]) |
| Specifications of bit devices | ☞ Page 620 Monitoring-supported bit devices ([IAI ROBO CYLINDER]) |
| | ☞ Page 621 Status device definition ([IAI ROBO CYLINDER]) |
| | ☞ Page 624 Availability of writing/reading data to/from bit devices ([IAI ROBO CYLINDER]) |
| Specifications of word devices | ☞ Page 624 Monitoring-supported word devices ([IAI ROBO CYLINDER]) |
| | ☞ Page 625 Registers device definition ([IAI ROBO CYLINDER]) |
| | ☞ Page 628 Availability of writing/reading data to/from word devices ([IAI ROBO CYLINDER]) |

Device setting dialog ([IAI ROBO CYLINDER])

Set a device to be monitored.



1) Title

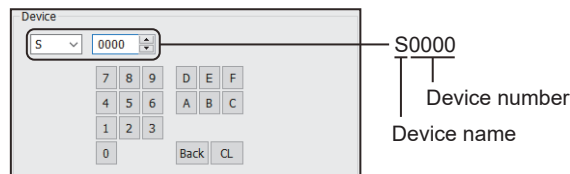
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of S0000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Station No.]

Set the station number.

The setting range is [0] to [15] (direct) or [100] to [115] (indirect).

For indirect specification of a station number, refer to the following.

☞ Page 620 Indirect specification of a station number ([IAI ROBO CYLINDER])

5) [Switch to the device define dialog]

You can open the device definition setting dialog to check the definition of the device.

For the details, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

A

■ Indirect specification of a station number ([IAI ROBO CYLINDER])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|--|
| 100 | GD10 | [0] to [15] Setting a value outside the above range causes a timeout error. |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Monitoring-supported bit devices ([IAI ROBO CYLINDER])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

☞ Page 624 Availability of writing/reading data to/from bit devices ([IAI ROBO CYLINDER])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|--------|---------------------------|--|--------------------------------|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| S | Status | Hexadecimal | 0000 to FFFF For the device definitions, refer to the following. ☞ Page 621 Status device definition ([IAI ROBO CYLINDER]) | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

Status device definition ([IAI ROBO CYLINDER])

Not available to the RCON series.

| Status | Device definition | Symbol |
|--------------|--|--------|
| 0000 to 00FF | - (Reserved for system use) | - |
| 0100 | EMG status | EMGS |
| 0101 | Safety speed enabled status | SFTY |
| 0102 | Controller ready status | PWR |
| 0103 | Servo ON status | SV |
| 0104 | Missed work in push-motion operation | PSFL |
| 0105 | Major failure status | ALMH |
| 0106 | Minor failure status | ALML |
| 0107 | Absolute error status | ABER |
| 0108 | Brake forced-release status | BKRL |
| 0109 | Use prohibited | - |
| 010A | Pause status | STP |
| 010B | Home return status | HEND |
| 010C | Position complete status | PEND |
| 010D | Load cell calibration complete | CEND |
| 010E | Load cell calibration status | CLBS |
| 010F to 0111 | Use prohibited | - |
| 0112 | Load output judgment status | LOAD |
| 0113 | Torque level status | TRQS |
| 0114 | Teaching mode status | MODS |
| 0115 | Position-data load command status | TEAC |
| 0116 | Jog + status | JOG+ |
| 0117 | Jog - status | JOG- |
| 0118 | Position complete 7 | PE7 |
| 0119 | Position complete 6 | PE6 |
| 011A | Position complete 5 | PE5 |
| 011B | Position complete 4 | PE4 |
| 011C | Position complete 3 | PE3 |
| 011D | Position complete 2 | PE2 |
| 011E | Position complete 1 | PE1 |
| 011F | Position complete 0 | PE0 |
| 0120 | Emergency stop status | EMGP |
| 0121 | Motor voltage low status | MPUV |
| 0122 | Operation mode status | RMDS |
| 0123 | Use prohibited | - |
| 0124 | Home returning status | GHMS |
| 0125 | Push-motion operation in progress | PUSH |
| 0126 | Excitation detection status | PSNS |
| 0127 | PIO/Modbus switching status | PMSS |
| 0128 to 0129 | Use prohibited | - |
| 012A | Moving signal | MOVE |
| 012B to 0135 | Use prohibited | - |
| 0136 | Position complete number status bit 512 | PM512 |
| 0137 | Completed position number status bit 256 | PM256 |
| 0138 | Position complete number status bit 128 | PM128 |
| 0139 | Position complete number status bit 64 | PM64 |
| 013A | Position complete number status bit 32/Executed program number status bit 32 | PM32 |
| 013B | Position complete number status bit 16/Executed program number status bit 16 | PM16 |
| 013C | Position complete number status bit 8/Executed program number status bit 8 | PM8 |
| 013D | Position complete number status bit 4/Executed program number status bit 4 | PM4 |

A

| Status | Device definition | Symbol |
|--------------|--|--------|
| 013E | Position complete number status bit 2/Executed program number status bit 2 | PM2 |
| 013F | Position complete number status bit 1/Executed program number status bit 1 | PM1 |
| 0140 | Use prohibited | - |
| 0141 | Limit sensor output monitor 2 | LS2 |
| 0142 | Limit sensor output monitor 1 | LS1 |
| 0143 | Limit sensor output monitor 0 | LS0 |
| 0144 to 0146 | Use prohibited | - |
| 0147 | Position zone output monitor | ZP |
| 0148 to 014D | Use prohibited | - |
| 014E | Zone output monitor 2 | Z2 |
| 014F | Zone output monitor 1 | Z1 |
| 0150 to 015F | PIO connector pin number 20A(IN15) to PIO connector pin number 5A(IN0) | - |
| 0160 to 016F | PIO connector pin number 16B(OUT15) to PIO connector pin number 1B(OUT0) | - |
| 0170 | Use prohibited | - |
| 0171 | Command pulse NP signal status | NP |
| 0172 | Use prohibited | - |
| 0173 | Command pulse PP signal status | PP |
| 0174 to 0176 | Use prohibited | - |
| 0177 | Mode switch status | MDSW |
| 0178 to 017A | Use prohibited | - |
| 017B | Belt breakage sensor monitor | BLCT |
| 017C | Home-check sensor monitor | HMCK |
| 017D | Overtravel sensor | OT |
| 017E | Creep sensor | CREP |
| 017F | Limit sensor | LS |
| 0180 to 0183 | Use prohibited | - |
| 0184 | Cold start level alarm | ALMC |
| 0185 to 0186 | Use prohibited | - |
| 0187 | RTC in use (ERC3, ACON-CA/CB and PCON-CA/CFA/CB/CFB only) | RTC |
| 0188 to 0190 | Use prohibited | - |
| 0191 | Waiting | WAIT |
| 0192 | While in returning operation | RTRN |
| 0193 | While in depression operation | DCMP |
| 0194 | Pressurize during the stop | PSTP |
| 0195 | While in pressurizing operation | PRSS |
| 0196 | While in probing operation | SERC |
| 0197 | While in approaching the operation | APRC |
| 0198 to 019A | Use prohibited | - |
| 019B | Program home return during the movement | MPHM |
| 019C | Program alarm | PALM |
| 019D | Program finished in normal condition | PCMP |
| 019E | While in executing program | PRUN |
| 019F | Program home position | PORG |
| 01A0 to 01A9 | Use prohibited | - |
| 01AA | Load judgment NG | LJNG |
| 01AB | Load judgment OK | LJOK |
| 01AC | Position (distance) judgment NG | PJNG |
| 01AD | Position (distance) judgment OK | PJOK |
| 01AE | Total judgment NG | JDNG |
| 01AF | Total judgment OK | JDOK |
| 01B0 to 03FF | - (Reserved for system use) | - |
| 0400 | EMG operation specification | EMG |
| 0401 | Safety speed command | SFTY |

| Status | Device definition | Symbol |
|--------------|---|--------|
| 0402 | Use prohibited | - |
| 0403 | Servo ON command | SON |
| 0404 to 0406 | Use prohibited | - |
| 0407 | Alarm reset command | ALRS |
| 0408 | Brake forced-release command | BKRL |
| 0409 | Use prohibited | - |
| 040A | Temporary stop command | STP |
| 040B | Home return command | HOME |
| 040C | Positioning start command | CSTR |
| 040D to 0410 | Use prohibited | - |
| 0411 | Jog/inch switching | JISL |
| 0412 to 0413 | Use prohibited | - |
| 0414 | Teaching mode command | MOD |
| 0415 | Position data load command | TEAC |
| 0416 | Jog + command | JOG+ |
| 0417 | Jog command | JOG- |
| 0418 | Start position 7 | ST7 |
| 0419 | Start position 6 | ST6 |
| 041A | Start position 5 | ST5 |
| 041B | Start position 4 | ST4 |
| 041C | Start position 3 | ST3 |
| 041D | Start position 2 | ST2 |
| 041E | Start position 1 | ST1 |
| 041F | Start position 0 | ST0 |
| 0420 to 0425 | Use prohibited | - |
| 0426 | Load cell calibration command | CLBR |
| 0427 | PIO/Modbus switching specification | PMSL |
| 0428 to 042B | Use prohibited | - |
| 042C | Deceleration stop | STOP |
| 042D to 0435 | Use prohibited | - |
| 0436 | Position command bit 512 | PC512 |
| 0437 | Position command bit 256 | PC256 |
| 0438 | Position command bit 128 | PC128 |
| 0439 | Position command bit 64 | PC64 |
| 043A | Position command bit 32/Program number command bit 32 | PC32 |
| 043B | Position command bit 16/Program number command bit 16 | PC16 |
| 043C | Position command bit 8/Program number command bit 8 | PC8 |
| 043D | Position command bit 4/Program number command bit 4 | PC4 |
| 043E | Position command bit 2/Program number command bit 2 | PC2 |
| 043F | Position command bit 1/Program number command bit 1 | PC1 |
| 0440 to 048F | -(Reserved for system use) | - |
| 0490 to 049A | Use prohibited | - |
| 049B | Axis operation permission | ENMV |
| 049C | Program home return movement | PHOM |
| 049D | Search stop | SSTP |
| 049E | Program compulsory finish | FPST |
| 049F | Program start | PSTR |
| 04A0 to FFFF | -(Reserved for system use) | - |

Availability of writing/reading data to/from bit devices ([IAI ROBO CYLINDER])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| S | R/W | -/- | -/- | -/- | -/- |

Monitoring-supported word devices ([IAI ROBO CYLINDER])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.


 Page 628 Availability of writing/reading data to/from word devices ([IAI ROBO CYLINDER])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|----------|---------------------------|---|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| R | Register | Hexadecimal | 0000 to FFFF For the device definitions, refer to the following.  Page 625 Registers device definition ([IAI ROBO CYLINDER]) | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Registers device definition ([IAI ROBO CYLINDER])

■When using PCON, ACON, SCON, or ERC2

| Register | Definition | Symbol | |
|---|--|---|------|
| 0000 to 04FF | - (Reserved for system use) | - | |
| 0500 | Alarm detail code | ALA0 | |
| 0501 | Alarm address | ALA0 | |
| 0502 | Always 0 | - | |
| 0503 | Alarm code | ALC0 | |
| 0504 | Alarm occurrence time | ALT0 | |
| 0506 to 0CFF | - (Reserved for system use) | - | |
| 0D00 | Device control register 1 | DRG1 | |
| 0D01 | Device control register 2 | DRG2 | |
| 0D03 | Position number specification register/Program number specification register | POSR | |
| 0D04 to 0FFF | - (Reserved for system use) | - | |
| 1000 to 3FFE | For each position No., 15 points of word device are assigned. ***: 0 to 767 • Position No.0: 1000 to 100E • Position No.1: 1010 to 101E : • Position No.767: 3FF0 to 3FFE | Position No.***: Target position (upper 16 bits) | PCMD |
| | | Position No.***: Target position (lower 16 bits) | PCMD |
| | | Position No.***: Positioning band (upper 16 bits) | INP |
| | | Position No.***: Positioning band (lower 16 bits) | INP |
| | | Position No.***: Speed command (upper 16 bits) | VCMD |
| | | Position No.***: Speed command (lower 16 bits) | VCMD |
| | | Position No.***: Individual zone boundary + (upper 16 bits) | ZNMP |
| | | Position No.***: Individual zone boundary + (lower 16 bits) | ZNMP |
| | | Position No.***: Individual zone boundary - (upper 16 bits) | ZNLP |
| | | Position No.***: Individual zone boundary - (lower 16 bits) | ZNLP |
| | | Position No.***: Acceleration command | ACMD |
| | | Position No.***: Deceleration command | DCMD |
| | | Position No.***: Push-current limiting value | PPOW |
| | | Position No.***: Load current threshold | LPOW |
| Position No.***: Control flag specification | CTLF | | |
| 4000 to 83FF | - (Reserved for system use) | - | |
| 8400 | Total moving count (upper 16 bits) | TLMC | |
| 8401 | Total moving count (lower 16 bits) | TLMC | |
| 8402 | Total moving distance (upper 16 bits) | ODOM | |
| 8403 | Total moving distance (lower 16 bits) | ODOM | |
| 841E | Current time (SCON-CA/CAL/CB only) (upper 16 bits) | TIMN | |
| 841F | Current time (SCON-CA/CAL/CB only) (lower 16 bits) | TIMN | |
| 8420 | Current time (PCON-CA/CFA/CB/CFB only) (upper 16 bits) | TIMN | |
| 8421 | Current time (PCON-CA/CFA/CB/CFB only) (lower 16 bits) | TIMN | |
| 8422 | Current time (ACON-CA/CB only) (upper 16 bits) | TIMN | |
| 8423 | Current time (ACON-CA/CB only) (lower 16 bits) | TIMN | |
| 842A | Total FAN driving time (SCON-CAL, SCON-CB [400W or more] only) (upper 16 bits) | TFAN | |
| 842B | Total FAN driving time (SCON-CAL, SCON-CB [400W or more] only) (lower 16 bits) | TFAN | |
| 842E | Total FAN driving time (PCON-CFA/CFB only) (upper 16 bits) | TFAN | |
| 842F | Total FAN driving time (PCON-CFA/CFB only) (lower 16 bits) | TFAN | |
| 8430 to 8FFF | - (Reserved for system use) | - | |
| 9000 | Current position register (upper 16 bits) | PNOW | |
| 9001 | Current position register (lower 16 bits) | PNOW | |
| 9002 | Present alarm code register | ALMC | |
| 9003 | Input port register | DIPM | |
| 9004 | Output port register | DOPM | |
| 9005 | Device status 1 register | DSS1 | |
| 9006 | Device status 2 register | DSS2 | |

| Register | Definition | Symbol |
|--------------|--|--------|
| 9007 | Expansion device status register | DSSE |
| 9008 | System status register (upper 16 bits) | STAT |
| 9009 | System status register (lower 16 bits) | STAT |
| 900A | Current speed monitor register (upper 16 bits) | VNOW |
| 900B | Current speed monitor register (lower 16 bits) | VNOW |
| 900C | Current ampere monitor register (upper 16 bits) | CNOW |
| 900D | Current ampere monitor register (lower 16 bits) | CNOW |
| 900E | Deviation monitor register (upper 16 bits) | DEVI |
| 900F | Deviation monitor register (lower 16 bits) | DEVI |
| 9010 | System timer register (upper 16 bits) | STIM |
| 9011 | System timer register (lower 16 bits) | STIM |
| 9012 | Special input port register | SIPM |
| 9013 | Zone status register | ZONS |
| 9014 | Positioning complete position No. register/Executed program No. register | POSS |
| 9015 | Expansion System status register | SSSE |
| 9016 to 901D | - (Reserved for system use) | - |
| 901E | Current load (SCON-CA/CB only) (upper 16 bits) | FBFC |
| 901F | Current load (SCON-CA/CB only) (lower 16 bits) | FBFC |
| 9020 | Overload level monitor (upper 16 bits) | OLLV |
| 9021 | Overload level monitor (lower 16 bits) | OLLV |
| 9022 | Press program alarm code | ALMP |
| 9023 | Press program alarm generated program No. | ALMP |
| 9024 | Press program status register | PPST |
| 9025 | Press program judgment status register | PPJD |
| 9026 to 97FF | - (Reserved for system use) | - |
| 9800 | Position movement command register | POSR |
| 9801 to 98FF | - (Reserved for system use) | - |
| 9900 | Target position coordinate specification register (upper 16 bits) | PCMD |
| 9901 | Target position coordinate specification register (lower 16 bits) | PCMD |
| 9902 | Positioning band specification register (upper 16 bits) | INP |
| 9903 | Positioning band specification register (lower 16 bits) | INP |
| 9904 | Speed specification register (upper 16 bits) | VCMD |
| 9905 | Speed specification register (lower 16 bits) | VCMD |
| 9906 | Acceleration speed specification register | ACMD |
| 9907 | Push-current limiting value | PPOW |
| 9908 | Control flag specification register | CTLF |
| 9909 to FFFF | - (Reserved for system use) | - |

■When using RCON

| Register | Definition | Symbol |
|--------------|--|--------|
| 0000 to 0CFF | - (Reserved for system use) | - |
| 0D00 | Device control register 1 | DRG1 |
| 0D01 | Device control register 2 | DRG2 |
| 0D02 to 8FFF | - (Reserved for system use) | - |
| 9000 | Absolute Position Counter Current Position(Higher 16bit) | PNOW |
| 9001 | Absolute Position Counter Current Position(Lower 16bit) | PNOW |
| 9002 | Currently Occurred Alarm Code | ALMC |
| 9005 | Device Status Register 1 | DSS1 |
| 9006 | Device Status Register 2 | DSS2 |
| 9007 | Extension Device Status Register | DSSE |
| 9008 | System status(Higher 16bit) | STAT |
| 9009 | System status(Lower 16bit) | STAT |
| 900A | Current Velocity Monitor(Higher 16bit) | VNOW |
| 900B | Current Velocity Monitor(Lower 16bit) | VNOW |
| 900C | Current (Torque Current)(Higher 16bit) | CNOW |
| 900D | Current (Torque Current)(Lower 16bit) | CNOW |
| 900E | Deviation Monitor(Higher 16bit) | DEVI |
| 900F | Deviation Monitor(Lower 16bit) | DEVI |
| 9010 | System Timer(Higher 16bit) | STIM |
| 9011 | System Timer(Lower 16bit) | STIM |
| 9012 | Special Input Port Monitoring Register | SIPM |
| 9013 | Zone Status Register | ZONS |
| 9014 | Position Number Status Register | POSS |
| 9015 | Extension System Status Register | SSSE |
| 901A | Feedback urgent (Torque Current)(Higher 16bit) | CNWF |
| 901B | Feedback urgent (Torque Current)(Lower 16bit) | CNWF |
| 901C to 901F | - (Reserved for system use) | - |
| 9020 | Overload Level Monitor(Higher 16bit) | OLLV |
| 9021 | Overload Level Monitor(Lower 16bit) | OLLV |
| 9030 to 92FF | - (Reserved for system use) | - |
| 9300 | Total moving count(Higher 16bit) | TTIM |
| 9301 | Total moving count(Lower 16bit) | TTIM |
| 9302 | Total drive distance(Higher 16bit) | ODOM |
| 9303 | Total drive distance(Lower 16bit) | ODOM |
| 9304 | Max. Drive Supply Voltage | FMAX |
| 9305 | Max. Control Voltage | VMAX |
| 9306 | Max. Motor Current(Higher 16bit) | CMAX |
| 9307 | Max. Motor Current(Lower 16bit) | CMAX |
| 9308 | Total conducting time(Higher 16bit) | TTIM |
| 9309 | Total conducting time(Lower 16bit) | TTIM |
| 930A | Emergency Stop Input Count(Higher 16bit) | EMGC |
| 930B | Emergency Stop Input Count(Lower 16bit) | EMGC |
| 930C | Average PCB Temperature | TEMP |
| 930D | Max. PCB Temperature | TEMP |
| 930E | Max. PCB Temperature Detected Time(Higher 16bit) | TTPM |
| 930F | Max. PCB Temperature Detected Time(Lower 16bit) | TTPM |
| 9311 | Max. Motor Overload Ratio | OLMX |
| 9312 | Max. Motor Overload Ratio Detected Time(Higher 16bit) | TOLM |
| 9313 | Max. Motor Overload Ratio Detected Time(Lower 16bit) | TOLM |
| 9014 to 93FF | - (Reserved for system use) | - |
| 9400 | Serial code 1(Higher 16bit) | CTS1 |

| Register | Definition | Symbol |
|--------------|--|--------|
| 9401 | Serial code 1(Lower 16bit) | CTS1 |
| 9402 | Serial code 2(Higher 16bit) | CTS2 |
| 9403 | Serial code 2(Lower 16bit) | CTS2 |
| 9404 | Serial code 3(Higher 16bit) | CTS3 |
| 9405 | Serial code 3(Lower 16bit) | CTS3 |
| 9406 | Serial code 4(Higher 16bit) | CTS4 |
| 9407 | Serial code 4(Lower 16bit) | CTS4 |
| 9800 | Position Number Indication Register | POSR |
| 9801 to 98FF | - (Reserved for system use) | - |
| 9900 | Target Position Indication Register(Higher 16bit) | PCMD |
| 9901 | Target Position Indication Register(Lower 16bit) | PCMD |
| 9902 | Positioning Band Indication Register(Higher 16bit) | INP |
| 9903 | Positioning Band Indication Register(Lower 16bit) | INP |
| 9904 | Velocity Indication Register(Higher 16bit) | VCMD |
| 9905 | Velocity Indication Register(Lower 16bit) | VCMD |
| 9906 | Acceleration/Deceleration Indication Register | ACMD |
| 9907 | Pressing Current Limit Indication Register | PPOW |
| 9908 | Control Flag Indication Register | CTLF |
| 9909 to 99FF | - (Reserved for system use) | - |
| 9A00 | Target Position Indication Register(Higher 16bit) | PCMD |
| 9A01 | Target Position Indication Register(Lower 16bit) | PCMD |
| 9A02 | Position Number Indication Register (except for target position) | PPOS |
| 9A03 to FFFF | - (Reserved for system use) | - |

Availability of writing/reading data to/from word devices ([IAI ROBO CYLINDER])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| R | R/W | R/W | -/- | R/W |

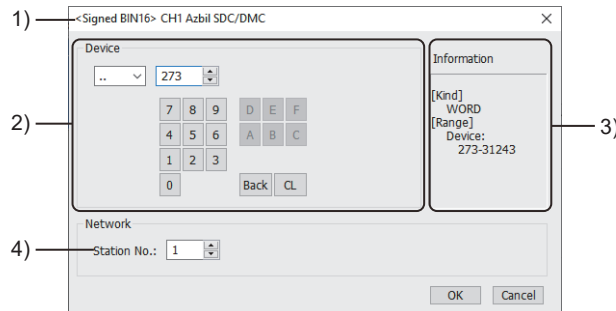
AZBIL equipment ([Azbil SDC/DMC])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|--------------------------------|--|
| Device setting dialog | ☞ Page 629 Device setting dialog ([Azbil SDC/DMC]) |
| Specifications of word devices | ☞ Page 630 Monitoring-supported word devices ([Azbil SDC/DMC]) |
| | ☞ Page 630 Availability of writing/reading data to/from word devices ([Azbil SDC/DMC]) |

Device setting dialog ([Azbil SDC/DMC])

Set a device to be monitored.



1) Title

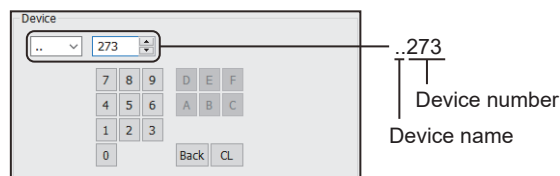
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of ..273



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Station No.]

Set the station number.

The setting range is [0] to [127] (direct) or [200] to [215] (indirect).

For indirect specification of a station number, refer to the following.

☞ Page 629 Indirect specification of a station number ([Azbil SDC/DMC])

■ Indirect specification of a station number ([Azbil SDC/DMC])

When you specify any of 200 to 215 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.


The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|--|
| 200 | GD10 | [0] to [127] |
| 201 | GD11 | Setting a value outside the above range causes a device range error. |
| : | : | |
| 214 | GD24 | |
| 215 | GD25 | |


Monitoring-supported word devices ([Azbil SDC/DMC])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 630 Availability of writing/reading data to/from word devices ([Azbil SDC/DMC])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|------|---------------------------|---------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| .. | Data | Decimal | 273 to 31243 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from word devices ([Azbil SDC/DMC])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| .. | R/W | -/- | -/- | R/W |

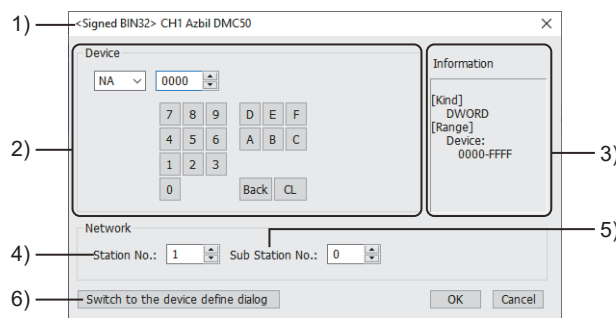
AZBIL equipment ([Azbil DMC50])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|---------------------------------------|---|
| Device setting dialog | ☞ Page 631 Device setting dialog ([Azbil DMC50]) |
| Specifications of double-word devices | ☞ Page 632 Monitoring-supported double-word devices ([Azbil DMC50]) |
| | ☞ Page 632 Network Addresses device definition ([Azbil DMC50]) |
| | ☞ Page 633 Parameter Addresses device definition ([Azbil DMC50]) |
| | ☞ Page 634 Availability of writing/reading data to/from double-word devices ([Azbil DMC50]) |
| Precautions | ☞ Page 634 Precautions ([Azbil DMC50]) |

Device setting dialog ([Azbil DMC50])

Set a device to be monitored.



1) Title

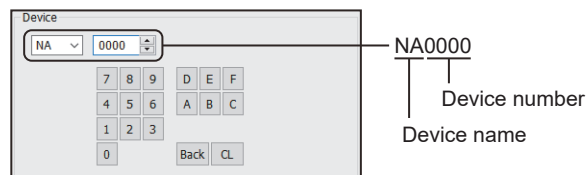
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of NA0000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Station No.]

Specify the station number of a COM module or control equipment.

The setting range is [1] to [15] (direct) or [100] to [115] (indirect).

For indirect specification of a station number, refer to the following.

☞ Page 632 Indirect specification of a station number ([Azbil DMC50])

5) [Sub Station No.]

Specify the sub station number of the control equipment that is connected to the COM module specified with [Station].

The setting range is [0] to [15].

If [Sub Station No.] is set to 0, the GOT monitors the COM module or the control equipment specified with [Station].

For AHC2001, [Sub Station No.] is ignored.

6) [Switch to the device define dialog]

You can open the device definition setting dialog to check the definition of the device.

For the details, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual



■ Indirect specification of a station number ([Azbil DMC50])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The upper 8 bits of the value in the GOT data register are regarded as the station number, and the lower 8 bits are regarded as the sub station number.

When a GD device is used as the station number, the setting of [Sub Station No.] becomes invalid.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|------------------|
| 100 | GD10 | 0x0000 to 0xFFFF |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Example) When [Station] is set to 100

The value of GD10 determines the control equipment to be monitored.

GD10 = 0 × 010A

(Upper 8 bits) 0 × 01 → Station No.: 1

(Lower 8 bits) 0 × 0A → Sub station No.: 10

Monitoring-supported double-word devices ([Azbil DMC50])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.



 Page 634 Availability of writing/reading data to/from double-word devices ([Azbil DMC50])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-------------|---------------------|---------------------------|--|--|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| NA | Network Addresses | Hexadecimal | 0000 to FFFF For the device definitions, refer to the following.  Page 632 Network Addresses device definition ([Azbil DMC50]) | × | × |
| PA | Parameter Addresses | Hexadecimal | (Parameter type ID)(Device) • Parameter type ID: 001 to 9FF • Device: 00000 to FFFFF For the definitions of the parameter type IDs, refer to the following.  Page 633 Parameter Addresses device definition ([Azbil DMC50]) | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Network Addresses device definition ([Azbil DMC50])

| Network Addresses | Definition |
|-------------------|-------------------|
| 0000 | Network Addresses |

Parameter Addresses device definition ([Azbil DMC50])

| Parameter type ID | Definition |
|-------------------|--|
| 001 | H/W Information |
| 002 | Date and Time Setup |
| 021 | AI Setup (High resolution type: standard inputs) |
| 022 | AI Setup (Special type) |
| 023 | AI Setup (High resolution type: option inputs) |
| 041 | AUX-IN Setup |
| 045 | AO Setup |
| 061 | DO Setup |
| 071 | TP Setup |
| 074 | Zener Barrier Adjustment Values |
| 0A1 | ME20X Communication Setup |
| 0A2 | MR20X Communication Setup |
| 0A3 | Front Port Communication Setup |
| 0C1 | System Status |
| 0C3 | Date and Time Display |
| 0C4 | System Alarm Log |
| 0C5 | AI Alarm Log |
| 0C6 | AUX-IN Alarm Log |
| 0E1 | AI Status |
| 0E2 | AUX-IN Status |
| 0E3 | AO Status |
| 0E5 | DI Status |
| 0E6 | DO Status |
| 0E7 | TP Status |
| 0E8 | Zener Barrier Adjustment Counts |
| 0F1 | Present ME20X Communication Setup |
| 0F2 | Present MR20X Communication Setup |
| 0F3 | Front Port Active Communication Setup |
| 103 | Memory Usage Monitor |
| 201 | PID_A Options |
| 202 | PID_A Constants |
| 203 | PID_A Monitor |
| 211 | PID_CAS Options |
| 212 | PID_CAS Constants (master) |
| 213 | PID_CAS Constants (slave) |
| 214 | PID_CAS Monitor |
| 234 | Ra_PID Options |
| 235 | Ra_PID Constants |
| 236 | Ra_PID Monitor |
| 241 | UP_PID Options |
| 242 | UP_PID Constants |
| 243 | UP_PID Monitor |
| 301 | TBL/TBR Setup |
| C00 | Pattern Setup |
| C01 to C63 | Segment Setup |
| CF1 | Pattern FB Monitor |
| 801 to 9FF | Type label defined by the user |

Availability of writing/reading data to/from double-word devices ([Azbil DMC50])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| NA | -/- | R/W | -/- | -/- |
| PA | -/- | R/- | -/- | -/- |

Precautions ([Azbil DMC50])

■Station No. and sub station No. of AZBIL DMC50

The station number and the sub station number set for the AZBIL DMC50 are equivalent to the network number and the station number set for the MITSUBISHI ELECTRIC PLC, respectively.

To set the control equipment to be monitored, set both the station number and the sub station number.

■Restrictions for the faulty station information, the control equipment, and servo amplifier monitor station disconnection

When the DMC50 is used, the GOT only monitors some stations.

For the details of the station numbers of the DMC50 to be monitored, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

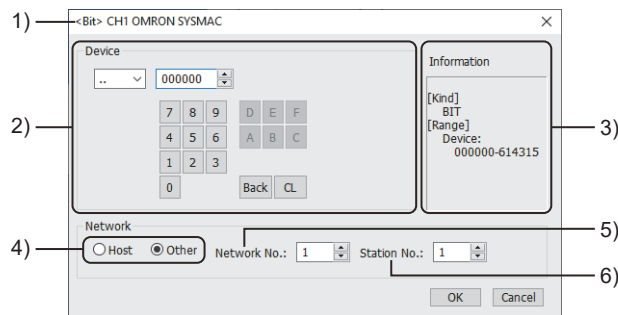
OMRON equipment ([OMRON SYSMAC])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|--------------------------------|---|
| Device setting dialog | Page 635 Device setting dialog ([OMRON SYSMAC]) |
| Specifications of bit devices | Page 636 Monitoring-supported bit devices ([OMRON SYSMAC]) |
| | Page 637 Availability of writing/reading data to/from bit devices ([OMRON SYSMAC]) |
| Specifications of word devices | Page 637 Monitoring-supported word devices ([OMRON SYSMAC]) |
| | Page 638 Availability of writing/reading data to/from word devices ([OMRON SYSMAC]) |

Device setting dialog ([OMRON SYSMAC])

Set a device to be monitored.



1) Title

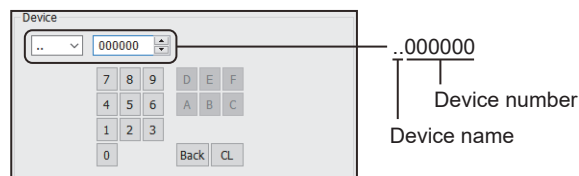
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of ..000000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) Station type specification

Select the station type (host or other) for the controller to be monitored.

- [Host]: The controller to be monitored is the host station.
- [Other]: The controller to be monitored is not the host station.

5) [Network No.]

This item appears when [Other] is selected for the station type.

Set the network number.

6) [Station No.]

This item appears when [Other] is selected for the station type.


Set the station number.

A


Monitoring-supported bit devices ([OMRON SYSMAC])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 637 Availability of writing/reading data to/from bit devices ([OMRON SYSMAC])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|--------------------------------------|---------------------------|---|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| .. | I/O relay, Internal auxiliary relay | Decimal | ..(Channel No.)(Bit No.) Notation example: ..614300 The two rightmost digits represent a bit number. • Channel No. (decimal): 0000 to 6143 • Bit No.: 00 to 15 | ○ | ○ |
| LR | Data link relay | Decimal | LR(Channel No.)(Bit No.) Notation example: LR19900 The two rightmost digits represent a bit number. • Channel No. (decimal): 000 to 199 • Bit No.: 00 to 15 | ○ | ○ |
| HR | Holding relay | Decimal | HR(Channel No.)(Bit No.) Notation example: HR51100 The two rightmost digits represent a bit number. • Channel No. (decimal): 000 to 511 • Bit No.: 00 to 15 | ○ | ○ |
| WR | Internal auxiliary relay, Work relay | Decimal | WR(Channel No.)(Bit No.) Notation example: WR51100 The two rightmost digits represent a bit number. • Channel No. (decimal): 000 to 511 • Bit No.: 00 to 15 | ○ | ○ |
| TIM | Timer contact | Decimal | 0 to 4095 | ○ | ○ |
| CNT | Counter contact | Decimal | 0 to 4095 | ○ | ○ |
| AR | Auxiliary memory relay | Decimal | AR(Channel No.)(Bit No.) Notation example: AR1153500 The two rightmost digits represent a bit number. • Channel No. (decimal): 00000 to 11535 • Bit No.: 00 to 15 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([OMRON SYSMAC])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| .. | R/W | -/- | R/W | R/W | -/- |
| LR | R/W | -/- | R/W | R/W | -/- |
| HR | R/W | -/- | R/W | R/W | -/- |
| WR | R/W | -/- | R/W | R/W | -/- |
| TIM | R/- | -/- | R/- | R/- | -/- |
| CNT | R/- | -/- | R/- | R/- | -/- |
| AR | R/W | -/- | R/W | R/W | -/- |

Monitoring-supported word devices ([OMRON SYSMAC])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 638 Availability of writing/reading data to/from word devices ([OMRON SYSMAC])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|------------------|---|---------------------------|--|--|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| TIM | Timer (current value) ^{*3*4} | Decimal | 0 to 4095 | ○ | ○ |
| CNT | Counter (current value) ^{*3*4} | Decimal | 0 to 4095 | ○ | ○ |
| DM | Data memory | Decimal | 0 to 32767 | ○ | ○ |
| EM ^{*2} | Extension data memory, EM current bank | Decimal | 0 to 32767 | ○ | ○ |
| E ^{*2} | Extension data memory | Hexadecimal + decimal | E(Bank No.)-(Device) Notation example: E18-100 • Bank No. (hexadecimal): 0 to 18 • Device (decimal): 0 to 32767 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 Writing or reading data extending across banks is not possible.

*3 A valid value ranges from 0 to 9999.
(This applies to the 16 bit/32 bit device data.)

*4 This is handled as a BCD value in the PLC. When serial connection is used between the PLC and the GOT, this is handled as an unsigned 16-bit binary data in the GOT.

For the object for monitoring on the GOT, select [Unsigned BIN16] for [Data Type].

A

Availability of writing/reading data to/from word devices ([OMRON SYSMAC])

The following shows the availability of writing/reading data to/from word devices by device type.

When executing the touch switch function that has been set during the bit specification of the word device, do not write any data to the word device through the sequence program.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| TIM | R/W | R/W | -/- | R/W |
| CNT | R/W | R/W | -/- | R/W |
| DM | R/W | R/W | -/- | R/W |
| EM | R/W | R/W | -/- | R/W |
| E | R/W | R/W | -/- | R/W |

OMRON equipment ([OMRON NJ/NX])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

Not available to GT2105-Q.

| Item | Reference |
|-----------------------|---|
| Device setting dialog | Page 639 Device setting dialog ([OMRON NJ/NX]) |
| Device specifications | Page 639 Monitoring-supported devices ([OMRON NJ/NX]) |

Device setting dialog ([OMRON NJ/NX])

Set a device to be monitored.

In the device setting dialog, only GOT internal devices are settable.

For setting the OMRON NJ/NX tags, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual



1) Title

Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

3) [Information]

Displays the setting range of each setting item according to the selected device.

Monitoring-supported devices ([OMRON NJ/NX])

To monitor the OMRON NJ or NX series, use OMRON NJ/NX tags.

For the usable OMRON NJ/NX tags, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

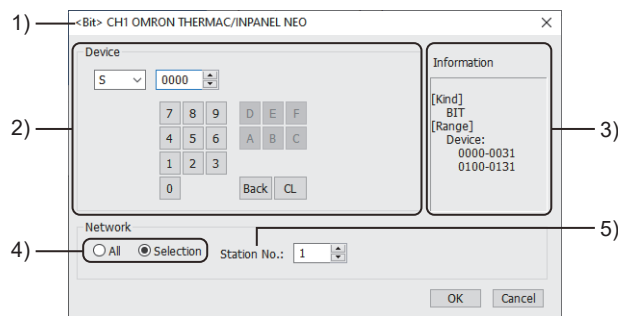
OMRON equipment ([OMRON THERMAC/INPANEL NEO])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|---------------------------------------|---|
| Device setting dialog | ☞ Page 640 Device setting dialog ([OMRON THERMAC/INPANEL NEO]) |
| Specifications of bit devices | ☞ Page 641 Monitoring-supported bit devices ([OMRON THERMAC/INPANEL NEO]) |
| | ☞ Page 641 Availability of writing/reading data to/from bit devices ([OMRON THERMAC/INPANEL NEO]) |
| Specifications of word devices | ☞ Page 642 Monitoring-supported word devices ([OMRON THERMAC/INPANEL NEO]) |
| | ☞ Page 642 Availability of writing/reading data to/from word devices ([OMRON THERMAC/INPANEL NEO]) |
| Specifications of double-word devices | ☞ Page 643 Monitoring-supported double-word devices ([OMRON THERMAC/INPANEL NEO]) |
| | ☞ Page 643 Availability of writing/reading data to/from double-word devices ([OMRON THERMAC/INPANEL NEO]) |

Device setting dialog ([OMRON THERMAC/INPANEL NEO])

Set a device to be monitored.



1) Title

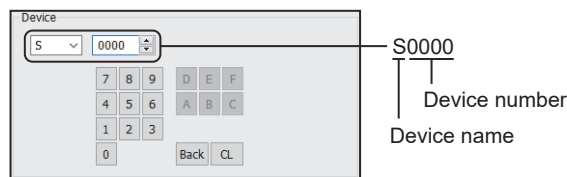
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of S0000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) Monitor target specification

Set the monitoring target of the set device.

| Item | Description |
|-------------|--|
| [All] | Select this when writing data to all temperature controllers. During monitoring, the temperature controller of station No. 1 is monitored. When writing the data in numerical input, data is written to all connected temperature controllers during input, and the temperature controller of station No. 1 is monitored during other than input (displaying). |
| [Selection] | Select this item when monitoring the indicating controller that has the specified station number. |

5) [Station No.]

This item appears when [Selection] is selected for the monitor target specification.

The setting range is [0] to [99] (direct) or [100] to [115] (indirect).

For indirect specification of a station number, refer to the following.

☞ Page 641 Indirect specification of a station number ([OMRON THERMAC/INPANEL NEO])

■ Indirect specification of a station number ([OMRON THERMAC/INPANEL NEO])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|---|
| 100 | GD10 | [0] to [99] Setting a value outside the above range causes a device range error. |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Monitoring-supported bit devices ([OMRON THERMAC/INPANEL NEO])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

☞ Page 641 Availability of writing/reading data to/from bit devices ([OMRON THERMAC/INPANEL NEO])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|--------|---------------------------|--|--------------------------------|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| S | Status | Decimal | S(Channel No.)(Bit No.) Notation example: S0100 • Channel No. (decimal): 00 to 01 • Bit No. (decimal): 00 to 31 | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([OMRON THERMAC/INPANEL NEO])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access


| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| S | R/- | -/- | -/- | -/- | -/- |

A


Monitoring-supported word devices ([OMRON THERMAC/INPANEL NEO])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 642 Availability of writing/reading data to/from word devices ([OMRON THERMAC/INPANEL NEO])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-----------------|-------------------|---------------------------|---------------|--|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| A ^{*2} | Operation command | Hexadecimal | 0000 to 0011 | ○ | ○ (Not usable as bit data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 Numerical input cannot be used.

Use a word switch for writing.

Availability of writing/reading data to/from word devices ([OMRON THERMAC/INPANEL NEO])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| A | -/W | -/- | -/- | -/- |

Monitoring-supported double-word devices ([OMRON THERMAC/INPANEL NEO])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

Page 643 Availability of writing/reading data to/from double-word devices ([OMRON THERMAC/INPANEL NEO])

For the formats of devices, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-----------------|---------------------------|--|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| C0 | Variable area 0 | Decimal + hexadecimal | C0(Channel No.)(Address) Notation example: C00100 • Channel No. (decimal): 00 to 01 • Address (hexadecimal): 00 to 13 | × | × |
| C1 | Variable area 1 | Decimal + hexadecimal | C1(Channel No.)(Address) Notation example: C10100 • Channel No. (decimal): 00 to 01 • Address (hexadecimal): 00 to 31 | × | × |
| C3 | Variable area 3 | Decimal + hexadecimal | C3(Channel No.)(Address) Notation example: C30100 • Channel No. (decimal): 00 to 01 • Address (hexadecimal): 00 to 83 | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from double-word devices ([OMRON THERMAC/INPANEL NEO])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| C0 | -/- | R/- | -/- | -/- |
| C1 | -/- | R/W | -/- | -/- |
| C3 | -/- | R/W | -/- | -/- |

A

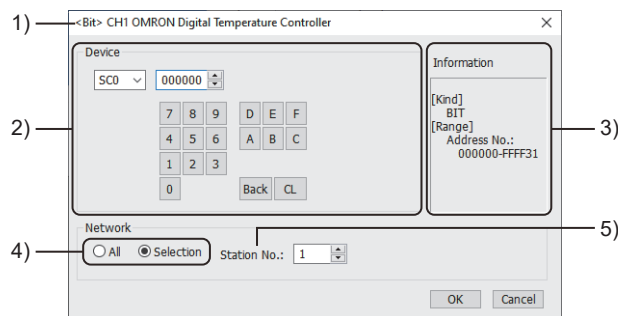
OMRON equipment ([OMRON Digital Temperature Controller])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|---------------------------------------|--|
| Device setting dialog | ☞ Page 644 Device setting dialog ([OMRON Digital Temperature Controller]) |
| Specifications of bit devices | ☞ Page 645 Monitoring-supported bit devices ([OMRON Digital Temperature Controller]) |
| | ☞ Page 645 Availability of writing/reading data to/from bit devices ([OMRON Digital Temperature Controller]) |
| Specifications of word devices | ☞ Page 646 Monitoring-supported word devices ([OMRON Digital Temperature Controller]) |
| | ☞ Page 646 Availability of writing/reading data to/from word devices ([OMRON Digital Temperature Controller]) |
| Specifications of double-word devices | ☞ Page 647 Monitoring-supported double-word devices ([OMRON Digital Temperature Controller]) |
| | ☞ Page 648 Availability of writing/reading data to/from double-word devices ([OMRON Digital Temperature Controller]) |

Device setting dialog ([OMRON Digital Temperature Controller])

Set a device to be monitored.



1) Title

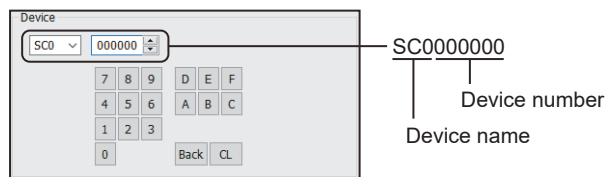
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of SC0000000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) Monitor target specification

Set the monitoring target of the set device.

| Item | Description |
|-------------|--|
| [All] | Select this when writing data to all temperature controllers. During monitoring, the temperature controller of station No. 1 is monitored. When writing the data in numerical input, data is written to all connected temperature controllers during input, and the temperature controller of station No. 1 is monitored during other than input (displaying). |
| [Selection] | Select this item when monitoring the indicating controller that has the specified station number. |

5) [Station No.]

This item appears when [Selection] is selected for the monitor target specification.

The setting range is [0] to [99] (direct) or [100] to [115] (indirect).

For indirect specification of a station number, refer to the following.

☞ Page 645 Indirect specification of a station number ([OMRON Digital Temperature Controller])

■ Indirect specification of a station number ([OMRON Digital Temperature Controller])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|---|
| 100 | GD10 | [0] to [99] Setting a value outside the above range causes a device range error. |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Monitoring-supported bit devices ([OMRON Digital Temperature Controller])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

☞ Page 645 Availability of writing/reading data to/from bit devices ([OMRON Digital Temperature Controller])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|--------------------------|---------------------------|---|--------------------------------|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| SC0 | Status(Variable type C0) | Hexadecimal + decimal | SC0(Address No.)(Bit No.) Notation example: SC0FFFF00 • Address number (hexadecimal): 0000 to FFFF • Bit No. (decimal): 00 to 31 | ○ | ○ (Not usable as word data) |
| SC4 | Status(Variable type C4) | Hexadecimal + decimal | SC4(Address No.)(Bit No.) Notation example: SC4FFFF00 • Address number (hexadecimal): 0000 to FFFF • Bit No. (decimal): 00 to 31 | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([OMRON Digital Temperature Controller])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| SC0 | R/- | -/- | -/- | -/- | -/- |
| SC4 | R/- | -/- | -/- | -/- | -/- |


Monitoring-supported word devices ([OMRON Digital Temperature Controller])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 646 Availability of writing/reading data to/from word devices ([OMRON Digital Temperature Controller])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-------------------|---------------------------|---------------|--------------------------------|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| A*2 | Operation command | Hexadecimal | 0000 to 00FF | ○ | ○ (Not usable as bit data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 Numerical input cannot be used.

Use a word switch for writing.

Availability of writing/reading data to/from word devices ([OMRON Digital Temperature Controller])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| A | -/W | -/- | -/- | -/- |

Monitoring-supported double-word devices ([OMRON Digital Temperature Controller])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 648 Availability of writing/reading data to/from double-word devices ([OMRON Digital Temperature Controller])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|------------------|---------------------------|---------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| C0 | Variable area C0 | Hexadecimal | 0000 to FFFF | × | × |
| C1 | Variable area C1 | Hexadecimal | 0000 to FFFF | × | × |
| C3 | Variable area C3 | Hexadecimal | 0000 to FFFF | × | × |
| C4 | Variable area C4 | Hexadecimal | 0000 to FFFF | × | × |
| C5 | Variable area C5 | Hexadecimal | 0000 to FFFF | × | × |
| C6 | Variable area C6 | Hexadecimal | 0000 to FFFF | × | × |
| C7 | Variable area C7 | Hexadecimal | 0000 to FFFF | × | × |
| C8 | Variable area C8 | Hexadecimal | 0000 to FFFF | × | × |
| C9 | Variable area C9 | Hexadecimal | 0000 to FFFF | × | × |
| CA | Variable area CA | Hexadecimal | 0000 to FFFF | × | × |
| CB | Variable area CB | Hexadecimal | 0000 to FFFF | × | × |
| CC | Variable area CC | Hexadecimal | 0000 to FFFF | × | × |
| CD | Variable area CD | Hexadecimal | 0000 to FFFF | × | × |
| CE | Variable area CE | Hexadecimal | 0000 to FFFF | × | × |
| CF | Variable area CF | Hexadecimal | 0000 to FFFF | × | × |
| D0 | Variable area D0 | Hexadecimal | 0000 to FFFF | × | × |
| D1 | Variable area D1 | Hexadecimal | 0000 to FFFF | × | × |
| D2 | Variable area D2 | Hexadecimal | 0000 to FFFF | × | × |
| D3 | Variable area D3 | Hexadecimal | 0000 to FFFF | × | × |
| D8 | Variable area D8 | Hexadecimal | 0000 to FFFF | × | × |
| D9 | Variable area D9 | Hexadecimal | 0000 to FFFF | × | × |
| DA | Variable area DA | Hexadecimal | 0000 to FFFF | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from double-word devices ([OMRON Digital Temperature Controller])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| C0 | -/- | R/- | -/- | -/- |
| C1 | -/- | R/W | -/- | -/- |
| C3 | -/- | R/W | -/- | -/- |
| C4 | -/- | R/W | -/- | -/- |
| C5 | -/- | R/W | -/- | -/- |
| C6 | -/- | R/W | -/- | -/- |
| C7 | -/- | R/W | -/- | -/- |
| C8 | -/- | R/W | -/- | -/- |
| C9 | -/- | R/W | -/- | -/- |
| CA | -/- | R/W | -/- | -/- |
| CB | -/- | R/W | -/- | -/- |
| CC | -/- | R/W | -/- | -/- |
| CD | -/- | R/W | -/- | -/- |
| CE | -/- | R/W | -/- | -/- |
| CF | -/- | R/W | -/- | -/- |
| D0 | -/- | R/W | -/- | -/- |
| D1 | -/- | R/W | -/- | -/- |
| D2 | -/- | R/W | -/- | -/- |
| D3 | -/- | R/W | -/- | -/- |
| D8 | -/- | R/W | -/- | -/- |
| D9 | -/- | R/W | -/- | -/- |
| DA | -/- | R/W | -/- | -/- |

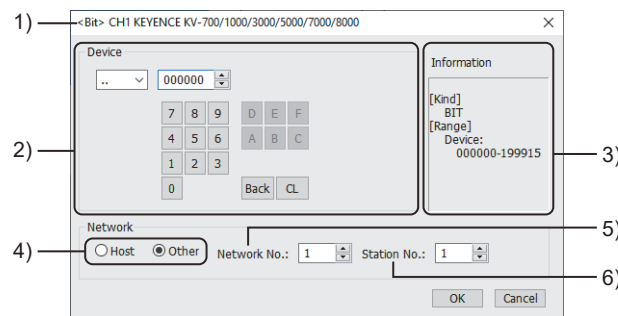
KEYENCE equipment ([KEYENCE KV-700/1000/3000/5000/7000/8000])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|---------------------------------------|---|
| Device setting dialog | ☞ Page 649 Device setting dialog ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |
| Specifications of bit devices | ☞ Page 650 Monitoring-supported bit devices ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |
| | ☞ Page 651 Availability of writing/reading data to/from bit devices ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |
| Specifications of word devices | ☞ Page 652 Monitoring-supported word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |
| | ☞ Page 653 Availability of writing/reading data to/from word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |
| Specifications of double-word devices | ☞ Page 653 Monitoring-supported double-word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |
| | ☞ Page 654 Availability of writing/reading data to/from double-word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |
| Precautions | ☞ Page 654 Precautions ([KEYENCE KV-700/1000/3000/5000/7000/8000]) |

Device setting dialog ([KEYENCE KV-700/1000/3000/5000/7000/8000])

Set a device to be monitored.



1) Title

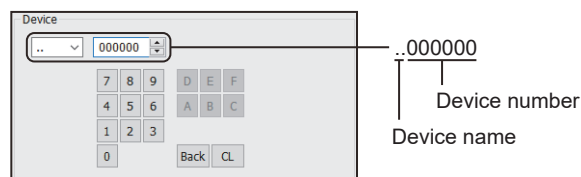
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of ..000000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) Station type specification

Select the station type (host or other) for the controller to be monitored.

- [Host]: The controller to be monitored is the host station.
- [Other]: The controller to be monitored is not the host station.

5) [Network No.]

This item appears when [Other] is selected for the station type.

Set the network number.

6) [Station No.]

This item appears when [Other] is selected for the station type.

Set the station number.

Monitoring-supported bit devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

Page 651 Availability of writing/reading data to/from bit devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

For the formats of devices, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | Device No. representation | Setting range | Specifications of EG devices ^{*1} | | |
|---------------------|--|---------------|--|-----------------------|---|
| | | | Assignment to EG devices | Access using a client | |
| .. ^{*2} | Relay | Decimal | ..(Channel No.)(Bit No.) Notation example: ..199900 • Channel No. (decimal): 0000 to 1999 • Bit No. (decimal): 00 to 15 | ○ | × |
| B ^{*3} | Link relay | Hexadecimal | 0000 to 7FFF | ○ | × |
| MR ^{*2} | Internal auxiliary relay | Decimal | MR(Channel No.)(Bit No.) Notation example: MR399900 • Channel No. (decimal): 0000 to 3999 • Bit No. (decimal): 00 to 15 | ○ | × |
| LR | Latch relay | Decimal | LR(Channel No.)(Bit No.) Notation example: LR99900 • Channel No. (decimal): 000 to 999 • Bit No. (decimal): 00 to 15 | ○ | × |
| T ^{*3} | Timer (contact) | Decimal | 0000 to 3999 | ○ | × |
| C ^{*3} | Counter (contact) | Decimal | 0000 to 3999 | ○ | × |
| CR | Control relay | Decimal | CR(Channel No.)(Bit No.) Notation example: CR8900 • Channel No. (decimal): 00 to 89 • Bit No. (decimal): 00 to 15 | ○ | × |
| CTC ^{*3*4} | High-speed counter comparators (contact) | Decimal | 0 to 7 | × | × |
| VB ^{*3} | Work relay | Hexadecimal | 0000 to F9FF | ○ | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

*2 When communication is performed through the following extension unit, the readable/writable device range is 00000 to 99915.

KV-L2□V

KV-LE2□V

KV-EP21V

*3 Monitoring by GOT is possible only when a device is used in the sequence program.

*4 In writing, only resetting of a contact is possible.

Availability of writing/reading data to/from bit devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| .. | R/W | -/- | R/W | R/W | -/- |
| B | R/W | -/- | R/W | R/W | -/- |
| MR | R/W | -/- | R/W | R/W | -/- |
| LR | R/W | -/- | R/W | R/W | -/- |
| T | R/W | -/- | -/- | -/- | -/- |
| C | R/W | -/- | -/- | -/- | -/- |
| CR | R/W | -/- | R/W | R/W | -/- |
| CTC | R/W | -/- | -/- | -/- | -/- |
| VB | R/W | -/- | R/W | R/W | -/- |


Monitoring-supported word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 653 Availability of writing/reading data to/from word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-------------------------|---------------------------|--|--------------------------------|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| DM | Data memory | Decimal | 00000 to 65534 | ○ | ○ |
| CM | Control memory | Decimal | 00000 to 11998 | ○ | ○ (Not usable as bit data) |
| W | Link register | Hexadecimal | 0000 to 7FFF | ○ | ○ |
| EM | Extension data memory | Decimal | 00000 to 65534 | ○ | ○ |
| Z | Index register | Decimal | 01 to 12 | ○ | ○ (Not usable as bit data) |
| FM | Extension data memory 2 | Decimal | 00000 to 32767 | ○ | ○ |
| ZF*2 | File register | Decimal | 000000 to 032767 032768 to 065535 065536 to 098303 098304 to 131071 131072 to 163839 163840 to 196607 196608 to 229375 229376 to 262143 262144 to 294911 294912 to 327679 327680 to 360447 360448 to 393215 393216 to 425983 425984 to 458751 458752 to 491519 491520 to 524287 | ○ | ○ |
| TM | Temporary data memory | Decimal | 000 to 511 | ○ | ○ (Not usable as bit data) |
| VM | Work memory | Decimal | 00000 to 63999 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 The restrictions differ depending on GT Designer3 version.

1.250L or earlier: Continuous access across banks is not available.

1.255R or later: Access across banks is available only for the Ethernet connection.

Availability of writing/reading data to/from word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-----------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| DM | R/W | R/W | -/- | R/W |
| CM | R/W | R/W | -/- | -/- |
| W | R/W | R/W | -/- | R/W |
| EM | R/W | R/W | -/- | R/W |
| Z ^{*1} | R/W | R/W | -/- | -/- |
| FM | R/W | R/W | -/- | R/W |
| ZF | R/W | R/W | -/- | R/W |
| TM | R/W | R/W | -/- | -/- |
| VM | R/W | R/W | -/- | -/- |

*1 With KV-3000 and KV-5000, Z devices cannot be specified as double-word (32-bit) data.
Use DZ devices.

Monitoring-supported double-word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

☞ Page 654 Availability of writing/reading data to/from double-word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-------------------|--|---------------------------|---------------|--|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| TC ^{*2} | Timer (current value) | Decimal | 0000 to 3999 | × | × |
| CC ^{*2} | Counter (current value) | Decimal | 0000 to 3999 | × | × |
| TS ^{*2} | Timer (set value) | Decimal | 0000 to 3999 | × | × |
| CS ^{*2} | Counter (set value) | Decimal | 0000 to 3999 | × | × |
| CTH ^{*2} | High-speed counter (current value) | Decimal | 0 to 3 | × | × |
| CTC ^{*2} | High-speed counter comparators (set value) | Decimal | 0 to 7 | × | × |
| DZ | Index register | Decimal | 01 to 12 | × | × |
| TRM | Digital trimmer | Decimal | 0 to 7 | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

*2 Monitoring by GOT is possible only when a device is used in the sequence program.

A

Availability of writing/reading data to/from double-word devices ([KEYENCE KV-700/1000/3000/5000/7000/8000])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| TC | -/- | R/W | -/- | -/- |
| CC | -/- | R/W | -/- | -/- |
| TS | -/- | R/W | -/- | -/- |
| CS | -/- | R/W | -/- | -/- |
| CTH | -/- | R/W | -/- | -/- |
| CTC | -/- | R/W | -/- | -/- |
| DZ | -/- | R/W | -/- | -/- |
| TRM | -/- | R/- | -/- | -/- |

Precautions ([KEYENCE KV-700/1000/3000/5000/7000/8000])

■ Notation of KEYENCE equipment devices

The KEYENCE notation and XYM notation are available for the devices of KEYENCE PLCs.

The KEYENCE notation is used in GT Designer3.

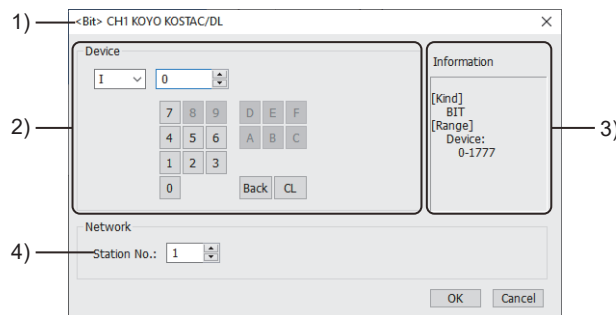
KOYO EI equipment ([KOYO KOSTAC/DL])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|--------------------------------|---|
| Device setting dialog | ☞ Page 655 Device setting dialog ([KOYO KOSTAC/DL]) |
| Specifications of bit devices | ☞ Page 656 Monitoring-supported bit devices ([KOYO KOSTAC/DL]) |
| | ☞ Page 657 Availability of writing/reading data to/from bit devices ([KOYO KOSTAC/DL]) |
| Specifications of word devices | ☞ Page 657 Monitoring-supported word devices ([KOYO KOSTAC/DL]) |
| | ☞ Page 658 Device R definitions ([KOYO KOSTAC/DL]) |
| | ☞ Page 659 Availability of writing/reading data to/from word devices ([KOYO KOSTAC/DL]) |

Device setting dialog ([KOYO KOSTAC/DL])

Set a device to be monitored.



1) Title

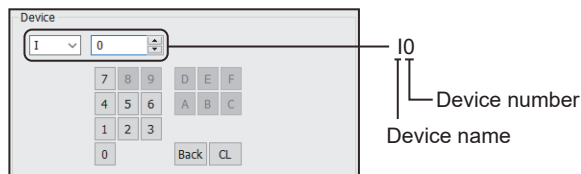
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of I0



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Station No.]

Set the station number.


The setting range is [1] to [90].

A


Monitoring-supported bit devices ([KOYO KOSTAC/DL])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 657 Availability of writing/reading data to/from bit devices ([KOYO KOSTAC/DL])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|----------------|---------------------------|---------------|--------------------------------|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| I | Input | Octal | 0 to 1777 | ○ | ○ (Not usable as word data) |
| Q | Output | Octal | 0 to 1777 | ○ | ○ (Not usable as word data) |
| GI | Link relay | Octal | 0 to 3777 | ○ | ○ (Not usable as word data) |
| M | Internal relay | Octal | 0 to 3777 | ○ | ○ (Not usable as word data) |
| S | Stage | Octal | 0 to 1777 | ○ | ○ (Not usable as word data) |
| T | Timer | Octal | 0 to 377 | ○ | ○ (Not usable as word data) |
| C | Counter | Octal | 0 to 377 | ○ | ○ (Not usable as word data) |
| GQ | Link output | Octal | 0 to 3777 | ○ | ○ (Not usable as word data) |
| SP | Special relay | Octal | 0 to 777 | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([KOYO KOSTAC/DL])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|------------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| I | R/W | -/- | -/- | -/- | -/- |
| Q | R/W | -/- | -/- | -/- | -/- |
| GI | R/W | -/- | -/- | -/- | -/- |
| M | R/W | -/- | -/- | -/- | -/- |
| S | R/W | -/- | -/- | -/- | -/- |
| T | R/W | -/- | -/- | -/- | -/- |
| C | R/W | -/- | -/- | -/- | -/- |
| GQ | R/W | -/- | -/- | -/- | -/- |
| SR ^{*1} | R/W | -/- | -/- | -/- | -/- |

*1 Read-only device for KOSTAC SU series

Monitoring-supported word devices ([KOYO KOSTAC/DL])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

☞ Page 659 Availability of writing/reading data to/from word devices ([KOYO KOSTAC/DL])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-------------|-----------|---------------------------|--|--|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| R | Data area | Octal | 0 to 41237 For the data area definitions, refer to the following. ☞ Page 658 Device R definitions ([KOYO KOSTAC/DL]) | ○ | ○ (Not usable as bit data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

Device R definitions ([KOYO KOSTAC/DL])

☞ Page 658 KOSTAC SU, PZ

☞ Page 658 DirectLOGIC 05, DirectLOGIC 06

☞ Page 659 DirectLOGIC 205 series

■KOSTAC SU, PZ

| Definition | Device range | | | |
|-------------------------|----------------|----------------|----------------|----------------|
| | SU-5E | SU-6B | SU-5M/6M | PZ3 |
| Timer (current value) | 0 to 177 | 0 to 377 | 0 to 377 | 0 to 377 |
| Preparatory register | - | - | 400 to 677 | - |
| Special register 1 | - | 700 to 737 | 700 to 777 | - |
| Counter (current value) | 1000 to 1177 | 1000 to 1177 | 1000 to 1377 | 1000 to 1177 |
| Data register | 1400 to 7377 | 1400 to 7377 | 1400 to 7377 | 1400 to 7377 |
| Special register | 7400 to 7777 | 7400 to 7777 | 7400 to 7777 | 7400 to 7777 |
| Data register | - | 10000 to 17777 | 10000 to 36777 | 10000 to 17777 |
| Special register | - | - | 37000 to 37777 | 37000 to 37777 |
| Link relay | 40000 to 40037 | 40000 to 40077 | 40000 to 40177 | - |
| Link output | - | - | 40200 to 40377 | - |
| Input | 40400 to 40423 | 40400 to 40423 | 40400 to 40477 | 40400 to 40437 |
| Output | 40500 to 40523 | 40500 to 40523 | 40500 to 40577 | 40500 to 40537 |
| Internal relay | 40600 to 40677 | 40600 to 40677 | 40600 to 40777 | 40600 to 40677 |
| Stage | 41000 to 41077 | 41000 to 41077 | 41000 to 41077 | 41000 to 41037 |
| Timer | 41100 to 41117 | 41100 to 41117 | 41100 to 41117 | 41100 to 41117 |
| Counter | 41140 to 41147 | 41140 to 41147 | 41140 to 41157 | 41140 to 41147 |
| Special relay | 41200 to 41205 | 41200 to 41205 | 41200 to 41237 | 41200 to 41237 |
| Special relay | 41215 to 41234 | 41215 to 41234 | - | - |

■DirectLOGIC 05, DirectLOGIC 06

| Definition | Device range | |
|-------------------------|----------------|----------------|
| | DirectLOGIC 05 | DirectLOGIC 06 |
| Timer (current value) | 0 to 177 | 0 to 377 |
| V-memory | - | 400 to 677 |
| System parameter | - | 700 to 777 |
| Counter (current value) | 1000 to 1177 | 1000 to 1177 |
| V-memory | 1200 to 7377 | 1200 to 7377 |
| V-Memory (non-volatile) | 7400 to 7577 | 7400 to 7577 |
| System parameter | 7600 to 7777 | 7600 to 7777 |
| V-memory | - | 10000 to 17777 |
| System parameter | - | 36000 to 37777 |
| Link relay | - | 40000 to 40177 |
| Link output | - | 40200 to 40377 |
| Input relay | 40400 to 40417 | 40400 to 40437 |
| Output relay | 40500 to 40517 | 40500 to 40537 |
| Internal relay | 40600 to 40637 | 40600 to 40677 |
| Stage | 41000 to 41017 | 41000 to 41017 |
| Timer | 41100 to 41107 | 41100 to 41117 |
| Counter | 41140 to 41147 | 41140 to 41147 |
| Special relay | 41200 to 41237 | 41200 to 41237 |

DirectLOGIC 205 series

| Definition | Device range | | |
|---------------------------|----------------|----------------|----------------|
| | D2-240 | D2-250-1 | D2-260 |
| Timer (current value) | 0 to 177 | 0 to 377 | 0 to 377 |
| Data word | - | - | 400 to 777 |
| Counter (current value) | 1000 to 1177 | 1000 to 1177 | 1000 to 1377 |
| Data word | 2000 to 3777 | 1400 to 7377 | 1400 to 7377 |
| Data Words (non-volatile) | 4000 to 4377 | - | - |
| System parameter | 7620 to 7637 | 7400 to 7777 | 7600 to 7777 |
| System parameter | 7746 to 7777 | - | - |
| Data word | - | 10000 to 17777 | 10000 to 35777 |
| System parameter | - | 36000 to 37777 | 36000 to 37777 |
| Link relay | - | - | 40000 to 40077 |
| Link output | - | - | 40200 to 40377 |
| Input | 40400 to 40423 | 40400 to 40437 | 40400 to 40477 |
| Output | 40500 to 40523 | 40500 to 40537 | 40500 to 40577 |
| Internal relay | 40600 to 40617 | 40600 to 40677 | 40600 to 40777 |
| Stage | 41000 to 41037 | 41000 to 41077 | 41000 to 41077 |
| Timer | 41100 to 41107 | 41100 to 41117 | 41100 to 41117 |
| Counter | 41140 to 41147 | 41140 to 41147 | 41140 to 41157 |
| Special relay | 41200 to 41205 | 41200 to 41237 | 41200 to 41237 |
| Special relay | 41226 to 41230 | - | - |

Availability of writing/reading data to/from word devices ([KOYO KOSTAC/DL])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| R ^{*1*2} | R/W | R/W | -/- | -/- |

*1 The GOT cannot write data to R7377 when SU-5M or SU-6M is used.

*2 The GOT cannot write data to devices from R7766 to R7774 (calendar area).

A

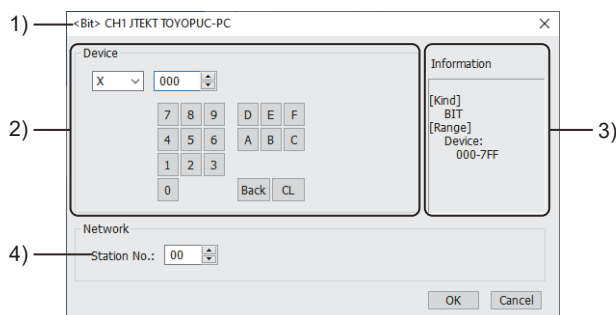
JTEKT equipment ([JTEKT TOYOPUC-PC])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|--------------------------------|---|
| Device setting dialog | Page 660 Device setting dialog ([JTEKT TOYOPUC-PC]) |
| Specifications of bit devices | Page 661 Monitoring-supported bit devices ([JTEKT TOYOPUC-PC]) |
| | Page 662 Availability of writing/reading data to/from bit devices ([JTEKT TOYOPUC-PC]) |
| Specifications of word devices | Page 663 Monitoring-supported word devices ([JTEKT TOYOPUC-PC]) |
| | Page 664 Availability of writing/reading data to/from word devices ([JTEKT TOYOPUC-PC]) |

Device setting dialog ([JTEKT TOYOPUC-PC])

Set a device to be monitored.



1) Title

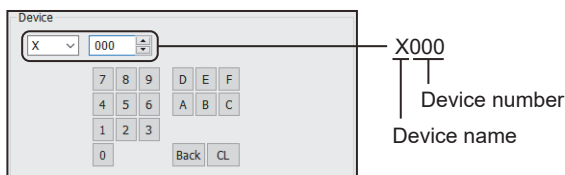
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of X000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Station No.]

Set the station number.

The setting range is [00] to [37] (octal number).


Monitoring-supported bit devices ([JTEKT TOYOPUC-PC])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 662 Availability of writing/reading data to/from bit devices ([JTEKT TOYOPUC-PC])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-----------------|-------------------------|---------------------------|---|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| X ² | Input relay | Hexadecimal | 000 to 7FF | ○ | × |
| Y ² | Output relay | Hexadecimal | 000 to 7FF | ○ | × |
| L | Link relay | Hexadecimal | P(Program No.)-L(Device) Notation example: P1-L7FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 000 to 7FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| M | Internal relay | Hexadecimal | P(Program No.)-M(Device) Notation example: P1-M7FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 000 to 7FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| K | Keep relay | Hexadecimal | P(Program No.)-K(Device) Notation example: P1-K2FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 000 to 2FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| P | Edge detection | Hexadecimal | P(Program No.)-P(Device) Notation example: P1-P1FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 000 to 1FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| T ² | Timer | Hexadecimal | P(Program No.)-T(Device) Notation example: P1-T1FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 000 to 1FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| C ² | Counter | Hexadecimal | P(Program No.)-C(Device) Notation example: P1-C1FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 000 to 1FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| V | Special relay | Hexadecimal | P(Program No.)-V(Device) Notation example: P1-V0FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 000 to 0FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| EX ² | Extended input | Hexadecimal | 000 to 7FF | ○ | × |
| EY ² | Extended output | Hexadecimal | 000 to 7FF | ○ | × |
| EM | Extended internal relay | Hexadecimal | 0000 to 1FFF | ○ | × |
| EK | Extended keep-relay | Hexadecimal | 000 to FFF | ○ | × |
| EV | Extended special relay | Hexadecimal | 000 to FFF | ○ | × |

A

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------------|---------------------------|---------------------------|---------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| ET ² | Extended timer | Hexadecimal | 000 to 7FF | ○ | × |
| EC ² | Extended counter | Hexadecimal | 000 to 7FF | ○ | × |
| EL | Extended link relay | Hexadecimal | 0000 to 1FFF | ○ | × |
| EP | Extended edge detection | Hexadecimal | 000 to FFF | ○ | × |
| GX ^{2,3} | Extended input 2 | Hexadecimal | 0000 to FFFF | ○ | × |
| GY ^{2,3} | Extended output 2 | Hexadecimal | 0000 to FFFF | ○ | × |
| GM ³ | Extended internal relay 2 | Hexadecimal | 0000 to FFFF | ○ | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

*2 Overlapped device specification of an input (X, EX, GX) and an output (Y, EY, GY), or a timer (T, ET) and a counter (C, EC) is not allowed.

Example) X0000 and Y0000, EX0000 and EY0000

*3 The device can be used only in the PC3JG separate mode.

Access to the device through a link module is not possible.

Availability of writing/reading data to/from bit devices ([JTEKT TOYOPUC-PC])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| X | R/W | -/- | R/W | R/W | -/- |
| Y | R/W | -/- | R/W | R/W | -/- |
| L | R/W | -/- | R/W | R/W | -/- |
| M | R/W | -/- | R/W | R/W | -/- |
| K | R/W | -/- | R/W | R/W | -/- |
| P | R/W | -/- | R/W | R/W | -/- |
| T | R/W | -/- | R/W | R/W | -/- |
| C | R/W | -/- | R/W | R/W | -/- |
| V | R/W | -/- | R/W | R/W | -/- |
| EX | R/W | -/- | R/W | R/W | -/- |
| EY | R/W | -/- | R/W | R/W | -/- |
| EM | R/W | -/- | R/W | R/W | -/- |
| EK | R/W | -/- | R/W | R/W | -/- |
| EV | R/W | -/- | R/W | R/W | -/- |
| ET | R/W | -/- | R/W | R/W | -/- |
| EC | R/W | -/- | R/W | R/W | -/- |
| EL | R/W | -/- | R/W | R/W | -/- |
| EP | R/W | -/- | R/W | R/W | -/- |
| GX | R/W | -/- | R/W | R/W | -/- |
| GY | R/W | -/- | R/W | R/W | -/- |
| GM | R/W | -/- | R/W | R/W | -/- |


Monitoring-supported word devices ([JTEKT TOYOPUC-PC])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 664 Availability of writing/reading data to/from word devices ([JTEKT TOYOPUC-PC])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|---------------------------------|---------------------------|--|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| B | File register | Hexadecimal | 0000 to 1FFF | ○ | × |
| D | Data register | Hexadecimal | P(Program No.)-D(Device) Notation example: P1-D2FFF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 0000 to 2FFF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| R | Link register | Hexadecimal | P(Program No.)-R(Device) Notation example: P1-R07FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 0000 to 07FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| N | Current value register | Hexadecimal | P(Program No.)-N(Device) Notation example: P1-N01FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 0000 to 01FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| S | Special register | Hexadecimal | P(Program No.)-S(Device) Notation example: P1-S03FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 0000 to 03FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |
| EN | Extended present value register | Hexadecimal | 0000 to 07FF | ○ | × |
| H | Extended setup value register | Hexadecimal | 0000 to 07FF | ○ | × |
| ES | Extended special register | Hexadecimal | 0000 to 07FF | ○ | × |
| U | Extended data register | Hexadecimal | 0000 to 7FFF | ○ | × |
| EB*2 | Extended buffer register | Hexadecimal | 00000 to 1FFFF | ○ | × |
| TCS*3 | Setup value register | Hexadecimal | P(Program No.)-TCS(Device) Notation example: P1-TCS01FF • Program No. (decimal): None, 1 to 3 • Device (hexadecimal): 0000 to 01FF When "NONE" is shown for [Program No.], it is not necessary to set "P(Program No.)-". | ○ | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 The device can be used only in the PC3JG separate mode.

Access to the device through a link module is not possible.

*3 To store a setting value of T or C, use TCS.

The setting value of T or C is stored in TCS.

TCS cannot be used if T or C is not in a program.

A

Availability of writing/reading data to/from word devices ([JTEKT TOYOPUC-PC])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| B | R/W | R/W | -/- | R/W |
| D | R/W | R/W | -/- | R/W |
| R | R/W | R/W | -/- | R/W |
| N | R/W | R/W | -/- | R/W |
| S | R/W | R/W | -/- | R/W |
| EN | R/W | R/W | -/- | R/W |
| H | R/W | R/W | -/- | R/W |
| ES | R/W | R/W | -/- | R/W |
| U | R/W | R/W | -/- | R/W |
| EB | R/W | R/W | -/- | -/- |
| TCS | R/W | -/- | -/- | -/- |

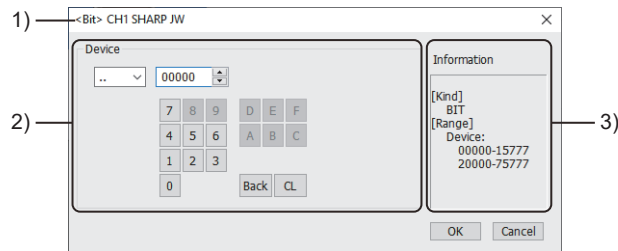
SHARP equipment ([SHARP JW])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|--------------------------------|---|
| Device setting dialog | Page 665 Device setting dialog ([SHARP JW]) |
| Specifications of bit devices | Page 666 Monitoring-supported bit devices ([SHARP JW]) |
| | Page 666 Availability of writing/reading data to/from bit devices ([SHARP JW]) |
| Specifications of word devices | Page 667 Monitoring-supported word devices ([SHARP JW]) |
| | Page 668 Availability of writing/reading data to/from word devices ([SHARP JW]) |

Device setting dialog ([SHARP JW])

Set a device to be monitored.



1) Title

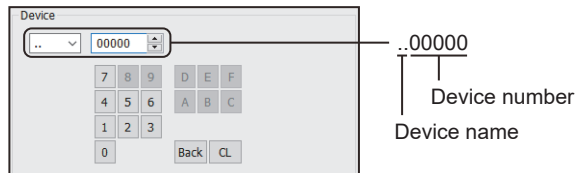
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of ..00000



3) [Information]

Displays the setting range of each setting item according to the selected device.



Monitoring-supported bit devices ([SHARP JW])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

Page 666 Availability of writing/reading data to/from bit devices ([SHARP JW])

For the formats of devices, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-------------------|-------------------|---------------------------|--|--|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| .. ^{*2} | Relay | Octal | ..(Device address)(Bit address) Notation example: ..15770 The rightmost digit is a bit address. • Device (octal): 0000 to 1577, 2000 to 7577 • Bit address (octal): 0 to 7 | ○ | ○ |
| T ^{*3*4} | Timer (contact) | Octal | 0000 to 1777 | ○ | ○ (Not usable as word data) |
| C ^{*3*4} | Counter (contact) | Octal | 0000 to 1777 | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

*2 To use the device as word data, set an even number for the device address and set 0 (fixed) for the bit address.

*3 Device settings for T and C must not overlap one another in the same address range.

Even if the address ranges overlap one another, the GOT displays no error.

The GOT monitors the timer and counter devices according to their address range instead of their device name.

Accordingly, if a device invalid as a SHARP PLC parameter is specified on GT Designer3, the GOT monitors a different device that covers the address range of the specified device.

Example) Parameter settings on the SHARP PLC side: T0000 to T1000, C1001 to C1777

When "C0000" is set in GT Designer3, GOT will monitor "T0000".

*4 Writing is possible only while the CPU is running (while the timer and counter is in operation).

Availability of writing/reading data to/from bit devices ([SHARP JW])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| .. | R/W | -/- | R/W | R/W | -/- |
| T | R/W | -/- | -/- | -/- | -/- |
| C | R/W | -/- | -/- | -/- | -/- |

Monitoring-supported word devices ([SHARP JW])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 668 Availability of writing/reading data to/from word devices ([SHARP JW])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-------------------------|---------------------------|------------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| T*2 | Timer (Current value) | Octal | 0000 to 1777 | ○ | ○ |
| C*2 | Counter (Current value) | Octal | 0000 to 1777 | ○ | ○ |
| 1*3 | File register | Octal | 000000 to 177776 | ○ | ○ |
| 2*3 | File register | Octal | 000000 to 177776 | ○ | ○ |
| 3*3 | File register | Octal | 000000 to 177776 | ○ | ○ |
| 4*3 | File register | Octal | 000000 to 177776 | ○ | ○ |
| 5*3 | File register | Octal | 000000 to 177776 | ○ | ○ |
| 6*3 | File register | Octal | 000000 to 177776 | ○ | ○ |
| 7*3 | File register | Octal | 000000 to 177776 | ○ | ○ |
| 09*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 19*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 29*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 39*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 49*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 59*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 69*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 79*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 89*4 | Register | Octal | 000 to 776 | ○ | ○ |
| 99*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E0*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E1*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E2*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E3*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E4*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E5*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E6*4 | Register | Octal | 000 to 776 | ○ | ○ |
| E7*4 | Register | Octal | 000 to 776 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 Device settings for T and C must not overlap one another in the same address range.

Even if the address ranges overlap one another, the GOT displays no error.

The GOT monitors the timer and counter devices according to their address range instead of their device name.

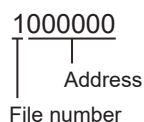
Accordingly, if a device invalid as a SHARP PLC parameter is specified on GT Designer3, the GOT monitors a different device that covers the address range of the specified device.

Example) Parameter settings on the SHARP PLC side: T0000 to T1000, C1001 to C1777

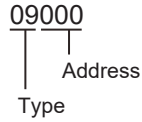
When "C0000" is set in GT Designer3, GOT will monitor "T0000".

*3 The file register format includes the file number and the address.

Set the address with an even number.



*4 The register format includes the type and the address.
Set the address with an even number.



Availability of writing/reading data to/from word devices ([SHARP JW])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| T | R/W | R/W | -/- | R/W |
| C | R/W | R/W | -/- | R/W |
| 1 | R/W | R/W | -/- | R/W |
| 2 | R/W | R/W | -/- | R/W |
| 3 | R/W | R/W | -/- | R/W |
| 4 | R/W | R/W | -/- | R/W |
| 5 | R/W | R/W | -/- | R/W |
| 6 | R/W | R/W | -/- | R/W |
| 7 | R/W | R/W | -/- | R/W |
| 09 | R/W | R/W | -/- | R/W |
| 19 | R/W | R/W | -/- | R/W |
| 29 | R/W | R/W | -/- | R/W |
| 39 | R/W | R/W | -/- | R/W |
| 49 | R/W | R/W | -/- | R/W |
| 59 | R/W | R/W | -/- | R/W |
| 69 | R/W | R/W | -/- | R/W |
| 79 | R/W | R/W | -/- | R/W |
| 89 | R/W | R/W | -/- | R/W |
| 99 | R/W | R/W | -/- | R/W |
| E0 | R/W | R/W | -/- | R/W |
| E1 | R/W | R/W | -/- | R/W |
| E2 | R/W | R/W | -/- | R/W |
| E3 | R/W | R/W | -/- | R/W |
| E4 | R/W | R/W | -/- | R/W |
| E5 | R/W | R/W | -/- | R/W |
| E6 | R/W | R/W | -/- | R/W |
| E7 | R/W | R/W | -/- | R/W |

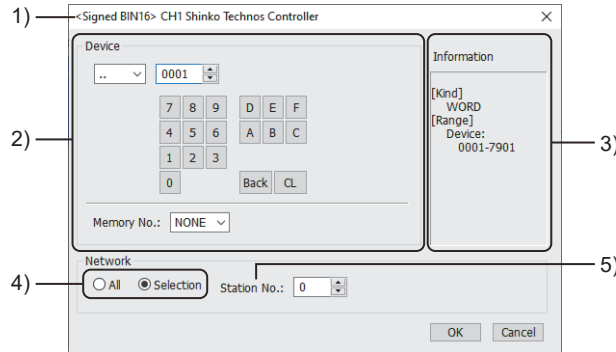
SHINKO equipment ([Shinko Technos Controller])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|--------------------------------|--|
| Device setting dialog | Page 669 Device setting dialog ([Shinko Technos Controller]) |
| Specifications of word devices | Page 670 Monitoring-supported word devices ([Shinko Technos Controller]) |
| | Page 670 Availability of writing/reading data to/from word devices ([Shinko Technos Controller]) |

Device setting dialog ([Shinko Technos Controller])

Set a device to be monitored.



1) Title

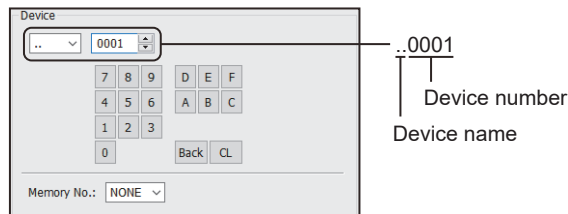
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of ..0001



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) Monitor target specification

Set the monitoring target of the set device.

| Item | Description |
|-------------|--|
| [All] | Select this item when writing data to all the connected indicating controllers. During monitoring, the indicating controller set for [Host Address] of the [Controller Setting] window is monitored. When data is input from a numerical input object, the data is written to all the connected indicating controllers. When no data is input, the controller set for [Host Address] is monitored. |
| [Selection] | Select this item when monitoring the indicating controller that has the specified station number. |

5) [Station No.]

This item appears when [Selection] is selected for the monitor target specification.

The setting range is [0] to [95] (direct) or [100] to [115] (indirect).

For the monitor target specified when [95] is selected, refer to the description for [All].

For indirect specification of a station number, refer to the following.

Page 670 Indirect specification of a station number ([Shinko Technos Controller])

■ Indirect specification of a station number ([Shinko Technos Controller])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|---|
| 100 | GD10 | [0] to [94] Setting a value outside the above range causes a device range error. |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Monitoring-supported word devices ([Shinko Technos Controller])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

☞ Page 670 Availability of writing/reading data to/from word devices ([Shinko Technos Controller])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|---------------------------|--|--------------------------------|-----------------------|
| | | | Assignment to EG devices | Access using a client |
| .. | Data | Hexadecimal M(Memory No.)/(Device) Notation example: M7/..0001 • Memory No.: None, 0 to 7 • Device: 0001 to 7901 When "NONE" is shown for [Memory No.], it is not necessary to set "M(Memory No.)". | ○ | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from word devices ([Shinko Technos Controller])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| .. | R/W | -/- | -/- | R/W |

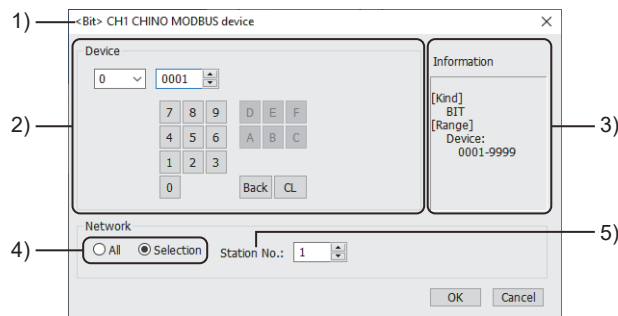
CHINO equipment ([CHINO MODBUS device])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|--------------------------------|--|
| Device setting dialog | Page 671 Device setting dialog ([CHINO MODBUS device]) |
| Specifications of bit devices | Page 672 Monitoring-supported bit devices ([CHINO MODBUS device]) |
| | Page 672 Availability of writing/reading data to/from bit devices ([CHINO MODBUS device]) |
| Specifications of word devices | Page 673 Monitoring-supported word devices ([CHINO MODBUS device]) |
| | Page 673 Availability of writing/reading data to/from word devices ([CHINO MODBUS device]) |

Device setting dialog ([CHINO MODBUS device])

Set a device to be monitored.



1) Title

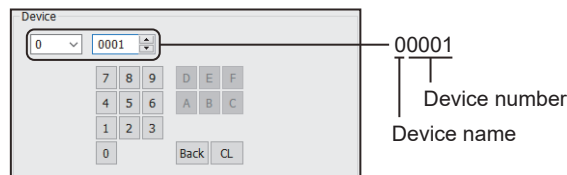
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of 00001



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) Monitor target specification

Set the monitoring target of the set device.

| Item | Description |
|-------------|---|
| [All] | Select this item when writing data to all the connected controllers. During monitoring, the controller set for [Host Address] of the [Controller Setting] window is monitored. When data is input from a numerical input object, the data is written to all the connected controllers. When no data is input, the controller set for [Host Address] is monitored. |
| [Selection] | Select this item when monitoring the controller that has the specified station number. |

5) [Station No.]

This item appears when [Selection] is selected for the monitor target specification.

The setting range is [0] to [99] (direct) or [100] to [115] (indirect).

For indirect specification of a station number, refer to the following.

Page 672 Indirect specification of a station number ([CHINO MODBUS device])

A

■ Indirect specification of a station number ([CHINO MODBUS device])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|---|
| 100 | GD10 | [0] to [99] Setting a value outside the above range causes a device range error. |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Monitoring-supported bit devices ([CHINO MODBUS device])

The following table shows monitoring-supported bit devices.

Devices are set with reference numbers.

For parameters corresponding to each reference number, refer to the following.

📖 Manual of the controller used

To check whether writing/reading data to/from each device is available, refer to the following.

📖 Page 672 Availability of writing/reading data to/from bit devices ([CHINO MODBUS device])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | Device No. representation | Setting range | Specifications of EG devices*1 | | |
|-------------|---------------------------|---------------|--------------------------------|-----------------------|---|
| | | | Assignment to EG devices | Access using a client | |
| 0 | Digital parameter | Decimal | 0001 to 9999 | ○ | ○ |
| 1 | Digital input data | Decimal | 0001 to 9999 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([CHINO MODBUS device])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| 0 | R/W | -/- | -/- | -/- | -/- |
| 1 | R/- | -/- | -/- | -/- | -/- |

Monitoring-supported word devices ([CHINO MODBUS device])

The following table shows monitoring-supported word devices.

Devices are set with reference numbers.

For parameters corresponding to each reference number, refer to the following.

Manual of the controller used

To check whether writing/reading data to/from each device is available, refer to the following.

Page 673 Availability of writing/reading data to/from word devices ([CHINO MODBUS device])

For the formats of devices, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | Device No. representation | Setting range | Specifications of EG devices*1 | | |
|-------------|---------------------------|---------------|--------------------------------|-----------------------|---|
| | | | Assignment to EG devices | Access using a client | |
| 3 | Analog input data | Decimal | 0001 to 9999 | ○ | ○ |
| 4 | Analog parameter | Decimal | 0001 to 9999 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from word devices ([CHINO MODBUS device])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| 3 | R/- | R/- | -/- | R/- |
| 4 | R/W | R/W | -/- | R/W |

A

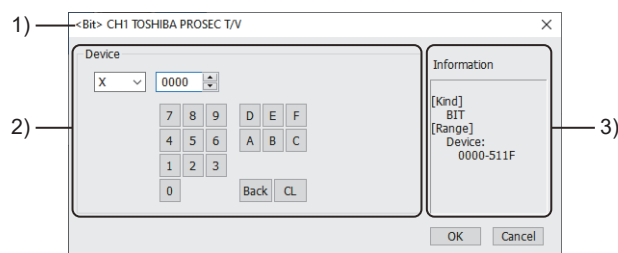
TOSHIBA equipment ([TOSHIBA PROSEC T/V])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|--------------------------------|---|
| Device setting dialog | Page 674 Device setting dialog ([TOSHIBA PROSEC T/V]) |
| Specifications of bit devices | Page 675 Monitoring-supported bit devices ([TOSHIBA PROSEC T/V]) |
| | Page 676 Availability of writing/reading data to/from bit devices ([TOSHIBA PROSEC T/V]) |
| Specifications of word devices | Page 677 Monitoring-supported word devices ([TOSHIBA PROSEC T/V]) |
| | Page 678 Availability of writing/reading data to/from word devices ([TOSHIBA PROSEC T/V]) |
| Notation of devices | Page 678 Notation of devices ([TOSHIBA PROSEC T/V]) |

Device setting dialog ([TOSHIBA PROSEC T/V])

Set a device to be monitored.



1) Title

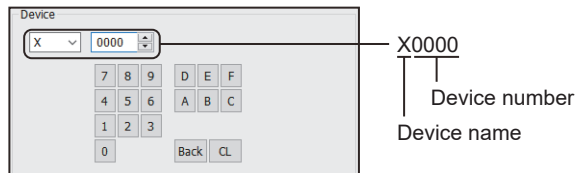
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of X0000



3) [Information]

Displays the setting range of each setting item according to the selected device.


Monitoring-supported bit devices ([TOSHIBA PROSEC T/V])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 676 Availability of writing/reading data to/from bit devices ([TOSHIBA PROSEC T/V])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

The notation of device setting is different between the TOSHIBA PLC peripheral software and GOT.

For the notation of devices, refer to the following.

 Page 678 Notation of devices ([TOSHIBA PROSEC T/V])

○: Available

×: Not available

| Device name | Device No. representation | Setting range | Specifications of EG devices*1 | |
|----------------|---------------------------|---|--------------------------------|--------------------------------|
| | | | Assignment to EG devices | Access using a client |
| X | External input | Decimal + hexadecimal X(Word address)(Bit address) Notation example: X5110 The rightmost digit is a bit address. • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| Y | External output | Decimal + hexadecimal Y(Word address)(Bit address) Notation example: Y5110 The rightmost digit is a bit address. • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| Z | Link register relay | Decimal + hexadecimal Z(Word address)(Bit address) Notation example: Z9990 The rightmost digit is a bit address. • Word address (decimal): 000 to 999F • Bit address (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| R ² | Internal relay | Decimal + hexadecimal R(Word address)(Bit address) Notation example: R40950 The rightmost digit is a bit address. • Word address (decimal): 0000 to 4095 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| T ³ | Timer (Contact) | Decimal 0 to 999 | ○ | ○ (Not usable as word data) |
| C ³ | Counter (Contact) | Decimal 0 to 511 | ○ | ○ (Not usable as word data) |
| L | Link relay | Decimal + hexadecimal L(Word address)(Bit address) Notation example: L2550 The rightmost digit is a bit address. • Word address (decimal): 000 to 255 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| S | Special relay | Decimal + hexadecimal S(Word address)(Bit address) Notation example: S5110 The rightmost digit is a bit address. • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 Although the device is defined as D in the manual of TOSHIBA PLC, R is used for setting as it is used for computer link connection.

*3 The GOT reads the value from a device and then write a value to the device.

Do not change the device value with a sequence program until the GOT completes writing a value to the device.

A

Availability of writing/reading data to/from bit devices ([TOSHIBA PROSEC T/V])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| X*1 | R/W | -/- | -/- | -/- | -/- |
| Y*1 | R/W | -/- | -/- | -/- | -/- |
| Z | R/W | -/- | -/- | -/- | -/- |
| R*1 | R/W | -/- | -/- | -/- | -/- |
| T | R/W | -/- | -/- | -/- | -/- |
| C | R/W | -/- | -/- | -/- | -/- |
| L*1 | R/W | -/- | -/- | -/- | -/- |
| S*1 | R/W | -/- | -/- | -/- | -/- |


*1 To use the device as word data, use the word device that has the same device name appended with "W".

Example) Use XW for X.


Monitoring-supported word devices ([TOSHIBA PROSEC T/V])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 678 Availability of writing/reading data to/from word devices ([TOSHIBA PROSEC T/V])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

The notation of device setting is different between the TOSHIBA PLC peripheral software and GOT.

For the notation of devices, refer to the following.


 Page 678 Notation of devices ([TOSHIBA PROSEC T/V])

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|------------------|-------------------------|---------------------------|---------------|--|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| T ^{*2} | Timer (Current value) | Decimal | 0 to 999 | ○ | ○ |
| C ^{*2} | Counter (Current value) | Decimal | 0 to 511 | ○ | ○ |
| D ^{*3} | Data register | Decimal | 0 to 8191 | ○ | ○ |
| W | Link register | Decimal | 0 to 2047 | ○ | ○ |
| F ^{*4} | File register | Decimal | 0 to 32767 | ○ | ○ |
| XW | External input | Decimal | 0 to 511 | ○ | ○ |
| YW | External output | Decimal | 0 to 511 | ○ | ○ |
| RW ^{*3} | Internal relay | Decimal | 0 to 4095 | ○ | ○ |
| LW | Link relay | Decimal | 0 to 255 | ○ | ○ |
| SW | Special relay | Decimal | 0 to 511 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 The GOT reads the value from a device and then write a value to the device.

Do not change the device value with a sequence program until the GOT completes writing a value to the device.

*3 Although the device is defined as DW in the manual of TOSHIBA PLC, D or RW is used for setting as they are used for computer link connection.

D and RW are different names, but practically represent the same device.

*4 Extension file register is not supported.

Availability of writing/reading data to/from word devices ([TOSHIBA PROSEC T/V])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|------------------|----------------|-----------------------|---------------------|--------------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data ^{*1} |
| T | R/W | R/W | -/- | -/- |
| C | R/W | R/W | -/- | -/- |
| D ^{*2} | R/W | R/W | -/- | R/W |
| W | R/W | R/W | -/- | R/W |
| F | R/W | R/W | -/- | R/W |
| XW ^{*3} | R/W | R/W | -/- | -/- |
| YW ^{*3} | R/W | R/W | -/- | -/- |
| RW ^{*3} | R/W | R/W | -/- | -/- |
| LW ^{*3} | R/W | R/W | -/- | -/- |
| SW ^{*3} | R/W | R/W | -/- | -/- |

*1 The GOT reads the value from a device and then write a value to the device.

Do not change the device value with a sequence program until the GOT completes writing a value to the device.

*2 When the mode switch on the CPU module has been set to P-RUN, writing to D0000 through D4095 is disabled.

*3 To use the device as bit data, use the bit device that has the same device name without "W".

Example) Use X for XW.

Notation of devices ([TOSHIBA PROSEC T/V])

The notation of device setting is different between the TOSHIBA PLC peripheral software and GOT.

■ Notation of bit devices ([TOSHIBA PROSEC T/V])

The conversion from the notation for the TOSHIBA PLC to that for the GOT is shown as follows.

Address notation for TOSHIBA PLC ÷ 16 = Word address (Quotient)...Bit address (Remainder)

| Example of address notation for TOSHIBA PLC | Conversion | Example of address notation for GOT |
|---|---|-------------------------------------|
| S8191 | $8191 \div 16 = 511...15$ • Word address (decimal): 511 • Bit address (hexadecimal): F | S511 F |
| R65535 | $65535 \div 16 = 4095...15$ • Word address (decimal): 4095 • Bit address (hexadecimal): F | R4095 F |

■ Notation of word devices ([TOSHIBA PROSEC T/V])

| Data type | | Example of address notation for TOSHIBA PLC | Example of address notation for GOT |
|-----------|-------------|---|-------------------------------------|
| 16 bits | | DW10 | D10 |
| 32 bits | Integer | DD10 (Calculate the device No. in 32-bit unit) | D20 |
| | Real number | DF10 (Calculate the device No. in 32-bit unit) | D20 |

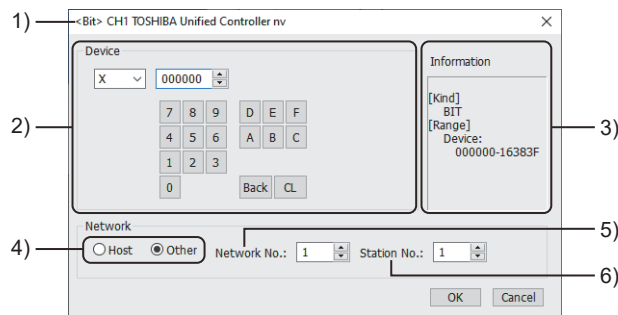
TOSHIBA equipment ([TOSHIBA Unified Controller nv])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|--------------------------------|--|
| Device setting dialog | Page 679 Device setting dialog ([TOSHIBA Unified Controller nv]) |
| Specifications of bit devices | Page 680 Monitoring-supported bit devices ([TOSHIBA Unified Controller nv]) |
| | Page 681 Availability of writing/reading data to/from bit devices ([TOSHIBA Unified Controller nv]) |
| Specifications of word devices | Page 681 Monitoring-supported word devices ([TOSHIBA Unified Controller nv]) |
| | Page 682 Availability of writing/reading data to/from word devices ([TOSHIBA Unified Controller nv]) |

Device setting dialog ([TOSHIBA Unified Controller nv])

Set a device to be monitored.



1) Title

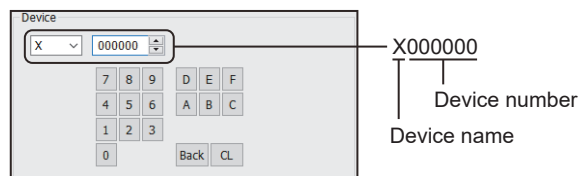
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of X000000



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) Station type specification

Select the station type (host or other) for the controller to be monitored.

- [Host]: The controller to be monitored is the host station.
- [Other]: The controller to be monitored is not the host station.

5) [Network No.]

This item appears when [Other] is selected for the station type.

Specify a network number.

6) [Station No.]

This item appears when [Other] is selected for the station type.

Set the station number.

A


Monitoring-supported bit devices ([TOSHIBA Unified Controller nv])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 681 Availability of writing/reading data to/from bit devices ([TOSHIBA Unified Controller nv])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-----------------|---------------------------|---|--------------------------------|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| X | External output | Decimal + hexadecimal | X(Word address)(Bit address) Notation example: X163830 The rightmost digit is a bit address. • Word address (decimal): 00000 to 16383 • Bit address (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| Y | External input | Decimal + hexadecimal | Y(Word address)(Bit address) Notation example: Y163830 The rightmost digit is a bit address. • Word address (decimal): 00000 to 16383 • Bit address (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| R | Internal relay | Decimal + hexadecimal | R(Word address)(Bit address) Notation example: R81910 The rightmost digit is a bit address. • Word address (decimal): 0000 to 8191 • Bit address (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| I | Input variable | Decimal + hexadecimal | I(Word address)(Bit address) Notation example: I163830 The rightmost digit is a bit address. • Word address (decimal): 00000 to 16383 • Bit address (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| Q | Output variable | Decimal + hexadecimal | Q(Word address)(Bit address) Notation example: Q163830 The rightmost digit is a bit address. • Word address (decimal): 00000 to 16383 • Bit address (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| S | Special relay | Decimal + hexadecimal | S(Word address)(Bit address) Notation example: S10230 The rightmost digit is a bit address. • Word address (decimal): 0000 to 1023 • Bit address (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([TOSHIBA Unified Controller nv])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| X*1 | R/W | -/- | -/- | -/- | -/- |
| Y*1 | R/W | -/- | -/- | -/- | -/- |
| R*1 | R/W | -/- | -/- | -/- | -/- |
| I*1 | R/W | -/- | -/- | -/- | -/- |
| Q*1 | R/W | -/- | -/- | -/- | -/- |
| S*1 | R/W | -/- | -/- | -/- | -/- |

*1 To use the device as word data, use the word device that has the same device name appended with "W".

Example) Use XW for X.

Monitoring-supported word devices ([TOSHIBA Unified Controller nv])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 682 Availability of writing/reading data to/from word devices ([TOSHIBA Unified Controller nv])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices *1 | |
|-------------|-----------------|---------------------------|---------------|---------------------------------|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| XW | External input | Decimal | 0 to 16383 | ○ | ○ (Not usable as bit data) |
| YW | External output | Decimal | 0 to 16383 | ○ | ○ (Not usable as bit data) |
| RW | Internal relay | Decimal | 0 to 8191 | ○ | ○ (Not usable as bit data) |
| SW | Special relay | Decimal | 0 to 1023 | ○ | ○ (Not usable as bit data) |
| D | Data register | Decimal | 0 to 8191 | ○ | ○ |
| F | File register | Decimal | 0 to 32767 | ○ | ○ |
| IW | Input variable | Decimal | 0 to 16383 | ○ | ○ (Not usable as bit data) |
| QW | Output variable | Decimal | 0 to 16383 | ○ | ○ (Not usable as bit data) |
| UG | User global | Decimal | 0 to 262143 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from word devices ([TOSHIBA Unified Controller nv])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|------------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| XW ^{*1} | R/W | R/W | -/- | -/- |
| YW ^{*1} | R/W | R/W | -/- | -/- |
| RW ^{*1} | R/W | R/W | -/- | -/- |
| SW ^{*1} | R/W | R/W | -/- | -/- |
| D | R/W | R/W | -/- | R/W |
| F | R/W | R/W | -/- | R/W |
| IW ^{*1} | R/W | R/W | -/- | -/- |
| QW ^{*1} | R/W | R/W | -/- | -/- |
| UG | R/W | R/W | -/- | R/W |

*1 To use the device as bit data, use the bit device that has the same device name without "W".

Example) Use X for XW.

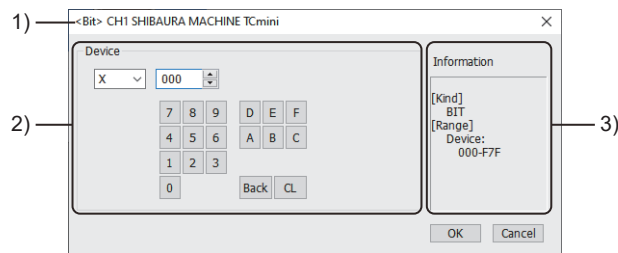
SHIBAURA MACHINE equipment ([SHIBAURA MACHINE TCmini])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|--------------------------------|--|
| Device setting dialog | Page 683 Device setting dialog ([SHIBAURA MACHINE TCmini]) |
| Specifications of bit devices | Page 684 Monitoring-supported bit devices ([SHIBAURA MACHINE TCmini]) |
| | Page 685 Availability of writing/reading data to/from bit devices ([SHIBAURA MACHINE TCmini]) |
| Specifications of word devices | Page 686 Monitoring-supported word devices ([SHIBAURA MACHINE TCmini]) |
| | Page 688 Availability of writing/reading data to/from word devices ([SHIBAURA MACHINE TCmini]) |

Device setting dialog ([SHIBAURA MACHINE TCmini])

Set a device to be monitored.



1) Title

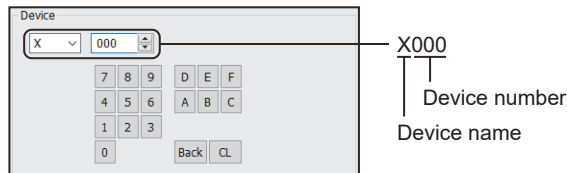
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of X000



3) [Information]

Displays the setting range of each setting item according to the selected device.

A


Monitoring-supported bit devices ([SHIBAURA MACHINE TCmini])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 685 Availability of writing/reading data to/from bit devices ([SHIBAURA MACHINE TCmini])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|---------------------------|--|--------------------------------|--------------------------------|
| | | | Assignment to EG devices | Access using a client |
| X | Input relay 1 | Hexadecimal + octal + hexadecimal X(Rack No.)(Module position)(Terminal No.) Notation example: XF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| Y | Output relay 1 | Hexadecimal + octal + hexadecimal Y(Rack No.)(Module position)(Terminal No.) Notation example: YF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| R | Internal relay | Hexadecimal + octal + hexadecimal R(Rack No.)(Module position)(Terminal No.) Notation example: R77F • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| L | Latch relay | Hexadecimal + octal + hexadecimal L(Rack No.)(Module position)(Terminal No.) Notation example: L07F • Rack No. (hexadecimal): 0 • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| S | Shift relay | Hexadecimal + octal + hexadecimal S(Rack No.)(Module position)(Terminal No.) Notation example: S07F • Rack No. (hexadecimal): 0 • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| E | Edge relay | Hexadecimal + octal + hexadecimal E(Rack No.)(Module position)(Terminal No.) Notation example: E77F • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| T | Timer contact | Hexadecimal + octal + hexadecimal T(Rack No.)(Module position)(Terminal No.) Notation example: T77F • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| C | Counter contact | Hexadecimal + octal + hexadecimal C(Rack No.)(Module position)(Terminal No.) Notation example: C77F • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| I | Input relay 2 | Hexadecimal + octal + hexadecimal I(Rack No.)(Module position)(Terminal No.) Notation example: IF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| O | Output relay 2 | Hexadecimal + octal + hexadecimal O(Rack No.)(Module position)(Terminal No.) Notation example: OF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|---------------------------|-----------------------------------|--|--------------------------------|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| GR | Extended internal relay 1 | Hexadecimal + octal + hexadecimal | GR(Rack No.)(Module position)(Terminal No.) Notation example: GRF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| H | Extended internal relay 2 | Hexadecimal + octal + hexadecimal | H(Rack No.)(Module position)(Terminal No.) Notation example: HF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| J | Extended internal relay 3 | Hexadecimal + octal + hexadecimal | J(Rack No.)(Module position)(Terminal No.) Notation example: JF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| K | Extended internal relay 4 | Hexadecimal + octal + hexadecimal | K(Rack No.)(Module position)(Terminal No.) Notation example: KF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |
| A | Special aux relay | Hexadecimal + octal + hexadecimal | A(Rack No.)(Module position)(Terminal No.) Notation example: A16F • Rack No. (hexadecimal): 0 to 1 • Module position (octal): 0 to 7 (0 to 6 when the rack No. is 1.) • Terminal No. (hexadecimal): 0 to F | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.
 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([SHIBAURA MACHINE TCmini])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

To use the device as word data, use the word device that has the same device name appended with "W".

Example) Use XW for X.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| X | R/W | -/- | -/- | -/- | -/- |
| Y | R/W | -/- | -/- | -/- | -/- |
| R | R/W | -/- | -/- | -/- | -/- |
| L | R/W | -/- | -/- | -/- | -/- |
| S | R/W | -/- | -/- | -/- | -/- |
| E | R/W | -/- | -/- | -/- | -/- |
| T | R/W | -/- | -/- | -/- | -/- |
| C | R/W | -/- | -/- | -/- | -/- |
| I | R/W | -/- | -/- | -/- | -/- |
| O | R/W | -/- | -/- | -/- | -/- |
| GR | R/W | -/- | -/- | -/- | -/- |
| H | R/W | -/- | -/- | -/- | -/- |
| J | R/W | -/- | -/- | -/- | -/- |
| K | R/W | -/- | -/- | -/- | -/- |
| A | R/W | -/- | -/- | -/- | -/- |

A


Monitoring-supported word devices ([SHIBAURA MACHINE TCmini])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 688 Availability of writing/reading data to/from word devices ([SHIBAURA MACHINE TCmini])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-------------|------------------------------|-----------------------------------|---|--|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| P | Timer/Counter current value | Hexadecimal + octal + hexadecimal | P(Rack No.)(Module position)(Register No.) Notation example: P77F • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 • Register No. (hexadecimal): 0 to F | ○ | ○ (Not usable as bit data) |
| XW | Input register 1 | Hexadecimal + octal | XW(Rack No.)(Module position) Notation example: XWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| IW | Input register 2 | Hexadecimal + octal | IW(Rack No.)(Module position) Notation example: IWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| YW | Output register 1 | Hexadecimal + octal | YW(Rack No.)(Module position) Notation example: YWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| OW | Output register 2 | Hexadecimal + octal | OW(Rack No.)(Module position) Notation example: OWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| RW | Internal register | Hexadecimal + octal | RW(Rack No.)(Module position) Notation example: RW77 • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| GW | Extended internal register 1 | Hexadecimal + octal | GW(Rack No.)(Module position) Notation example: GWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| HW | Extended internal register 2 | Hexadecimal + octal | HW(Rack No.)(Module position) Notation example: HWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| JW | Extended internal register 3 | Hexadecimal + octal | JW(Rack No.)(Module position) Notation example: JWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| KW | Extended internal register 4 | Hexadecimal + octal | KW(Rack No.)(Module position) Notation example: KWF7 • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| TW | Timer contact register | Hexadecimal + octal | TW(Rack No.)(Module position) Notation example: TW77 • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| CW | Counter contact register | Hexadecimal + octal | CW(Rack No.)(Module position) Notation example: CW77 • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-------------------------|-----------------------------------|---|--------------------------------|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| SW | Shift register | Hexadecimal + octal | SW(Rack No.)(Module position) Notation example: SW07 • Rack No. (hexadecimal): 0 • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| LW | Latch register | Hexadecimal + octal | LW(Rack No.)(Module position) Notation example: LW07 • Rack No. (hexadecimal): 0 • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| EW | Edge register | Hexadecimal + octal | EW(Rack No.)(Module position) Notation example: EW77 • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 | ○ | ○ (Not usable as bit data) |
| AW | Special aux register | Hexadecimal + octal | AW(Rack No.)(Module position) Notation example: AW17 • Rack No. (hexadecimal): 0 to 1 • Module position (octal): 0 to 7 (0 to 6 when the rack No. is 1.) | ○ | ○ (Not usable as bit data) |
| D | Generic register 1 | Hexadecimal + octal + hexadecimal | D(Rack No.)(Module position)(Register No.) Notation example: DF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Register No. (hexadecimal): 0 to F | ○ | ○ (Not usable as bit data) |
| B | Generic register 2 | Hexadecimal + octal + hexadecimal | B(Rack No.)(Module position)(Register No.) Notation example: BF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Register No. (hexadecimal): 0 to F | ○ | ○ (Not usable as bit data) |
| U | Generic register 3 | Hexadecimal + octal + hexadecimal | U(Rack No.)(Module position)(Register No.) Notation example: UF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Register No. (hexadecimal): 0 to F | ○ | ○ (Not usable as bit data) |
| M | Generic register 4 | Hexadecimal + octal + hexadecimal | M(Rack No.)(Module position)(Register No.) Notation example: MF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Register No. (hexadecimal): 0 to F | ○ | ○ (Not usable as bit data) |
| Q | Generic register 5 | Hexadecimal + octal + hexadecimal | Q(Rack No.)(Module position)(Register No.) Notation example: QF7F • Rack No. (hexadecimal): 0 to F • Module position (octal): 0 to 7 • Register No. (hexadecimal): 0 to F | ○ | ○ (Not usable as bit data) |
| V | Timer/Counter set value | Hexadecimal + octal + hexadecimal | V(Rack No.)(Module position)(Register No.) Notation example: V77F • Rack No. (hexadecimal): 0 to 7 • Module position (octal): 0 to 7 • Register No. (hexadecimal): 0 to F | ○ | ○ (Not usable as bit data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.
 GT Designer3 (GOT2000) Screen Design Manual



Availability of writing/reading data to/from word devices ([SHIBAURA MACHINE TCmini])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|------------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| P | R/W | -/- | -/- | -/- |
| XW ^{*1} | R/W | R/- | -/- | -/- |
| IW ^{*1} | R/W | R/- | -/- | -/- |
| YW ^{*1} | R/W | R/W | -/- | -/- |
| OW ^{*1} | R/W | R/W | -/- | -/- |
| RW ^{*1} | R/W | R/W | -/- | -/- |
| GW ^{*1} | R/W | R/W | -/- | -/- |
| HW ^{*1} | R/W | R/W | -/- | -/- |
| JW ^{*1} | R/W | R/W | -/- | -/- |
| KW ^{*1} | R/W | R/W | -/- | -/- |
| TW ^{*1} | R/W | R/W | -/- | -/- |
| CW ^{*1} | R/W | R/W | -/- | -/- |
| SW ^{*1} | R/W | R/W | -/- | -/- |
| LW ^{*1} | R/W | R/W | -/- | -/- |
| EW ^{*1} | R/W | R/W | -/- | -/- |
| AW ^{*1} | R/W | R/W | -/- | -/- |
| D | R/W | R/W | -/- | -/- |
| B | R/W | R/W | -/- | -/- |
| U | R/W | R/W | -/- | -/- |
| M | R/W | R/W | -/- | -/- |
| Q | R/W | R/W | -/- | -/- |
| V | R/W | -/- | -/- | -/- |

*1 To use the device as bit data, use the bit device that has the same device name without "W".
Example) Use X for XW.

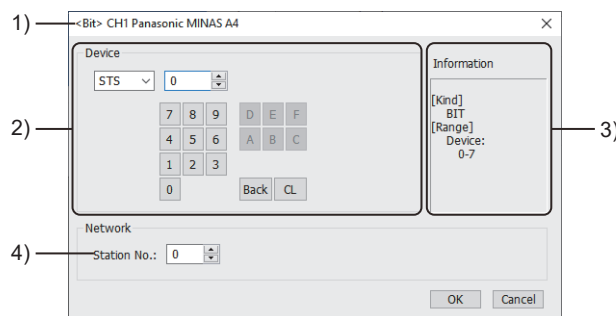
PANASONIC equipment ([Panasonic MINAS A4])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|---------------------------------------|--|
| Device setting dialog | ☞ Page 689 Device setting dialog ([Panasonic MINAS A4]) |
| Specifications of bit devices | ☞ Page 690 Monitoring-supported bit devices ([Panasonic MINAS A4]) |
| | ☞ Page 691 Availability of writing/reading data to/from bit devices ([Panasonic MINAS A4]) |
| Specifications of word devices | ☞ Page 691 Monitoring-supported word devices ([Panasonic MINAS A4]) |
| | ☞ Page 692 Availability of writing/reading data to/from word devices ([Panasonic MINAS A4]) |
| Specifications of double-word devices | ☞ Page 692 Monitoring-supported double-word devices ([Panasonic MINAS A4]) |
| | ☞ Page 693 Availability of writing/reading data to/from double-word devices ([Panasonic MINAS A4]) |

Device setting dialog ([Panasonic MINAS A4])

Set a device to be monitored.



1) Title

Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of STS0



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Station No.]

Set the station number.

The setting range is [0] to [15] (direct) or [100] to [115] (indirect).

For indirect specification of a station number, refer to the following.

☞ Page 690 Indirect specification of a station number ([Panasonic MINAS A4])



■ Indirect specification of a station number ([Panasonic MINAS A4])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|--|
| 100 | GD10 | [0] to [15] Setting a value outside the above range causes a timeout error. |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Monitoring-supported bit devices ([Panasonic MINAS A4])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 691 Availability of writing/reading data to/from bit devices ([Panasonic MINAS A4])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|---|---------------------------|---------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| STS | Status | Decimal | 0 to 7 | × | × |
| INP | Input signal | Decimal | 0 to 31 | ○ | × |
| OTP | Output signal | Decimal | 0 to 47 | ○ | × |
| AEST | Absolute encoder (Status) | Decimal | 0 to 15 | × | × |
| EPRW | Writing of parameter to EEPROM | Decimal | 0 | × | × |
| ALHC | Clear of user alarm history (in EEPROM as well) | Decimal | 0 | × | × |
| ALMC | Alarm clear | Decimal | 0 | × | × |
| ABSC | Absolute clear | Decimal | 0 | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([Panasonic MINAS A4])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| STS | R/- | -/- | -/- | -/- | -/- |
| INP | R/- | -/- | -/- | -/- | -/- |
| OTP | R/- | -/- | -/- | -/- | -/- |
| AEST | R/- | -/- | -/- | -/- | -/- |
| EPRW | -/W | -/- | -/- | -/- | -/- |
| ALHC | -/W | -/- | -/- | -/- | -/- |
| ALMC | -/W | -/- | -/- | -/- | -/- |
| ABSC | -/W | -/- | -/- | -/- | -/- |

Monitoring-supported word devices ([Panasonic MINAS A4])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

Page 692 Availability of writing/reading data to/from word devices ([Panasonic MINAS A4])

For the formats of devices, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-------------|------------------------------------|---------------------------|---------------|--|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| STCM | Status (Control modes) | Decimal | 0 | × | × |
| SPD | Present speed | Decimal | 0 | × | × |
| TRQ | Present torque output | Decimal | 0 | × | × |
| AEID | Absolute encoder (Encoder ID) | Decimal | 0 | × | × |
| AEMD | Absolute encoder (Multi-turn data) | Decimal | 0 | × | × |
| PRM | Parameter | Hexadecimal | 0000 to 007F | ○ | × |
| ALM | Present alarm data | Decimal | 0 | × | × |
| ALHI | User alarm history | Decimal | 1 to 14 | ○ | × |
| PRMN | User parameter (MIN. value) | Hexadecimal | 0000 to 007F | ○ | × |
| PRMX | User parameter (MAX. value) | Hexadecimal | 0000 to 007F | ○ | × |
| PRPR | Attribute | Hexadecimal | 0000 to 007F | ○ | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from word devices ([Panasonic MINAS A4])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| STCM | R/- | -/- | -/- | -/- |
| SPD | R/- | -/- | -/- | -/- |
| TRQ | R/- | -/- | -/- | -/- |
| AEID | R/- | -/- | -/- | -/- |
| AEMD | R/- | -/- | -/- | -/- |
| PRM | R/W | -/- | -/- | -/- |
| ALM | R/- | -/- | -/- | -/- |
| ALHI | R/- | -/- | -/- | -/- |
| PRMN | R/- | -/- | -/- | -/- |
| PRMX | R/- | -/- | -/- | -/- |
| PRPR | R/- | -/- | -/- | -/- |

Monitoring-supported double-word devices ([Panasonic MINAS A4])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 693 Availability of writing/reading data to/from double-word devices ([Panasonic MINAS A4])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-------------|--|---------------------------|---------------|--|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| FBPC | Feedback pulse counter | Decimal | 0 | × | × |
| DVC | Present deviation counter | Decimal | 0 | × | × |
| AESD | Absolute encoder (Single turn data) | Decimal | 0 | × | × |
| ESA | External scale deviation and sum of pulses | Decimal | 0 to 1 | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from double-word devices ([Panasonic MINAS A4])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| FBPC | -/- | R/- | -/- | -/- |
| DVC | -/- | R/- | -/- | -/- |
| AESD | -/- | R/- | -/- | -/- |
| ESA | -/- | R/- | -/- | -/- |

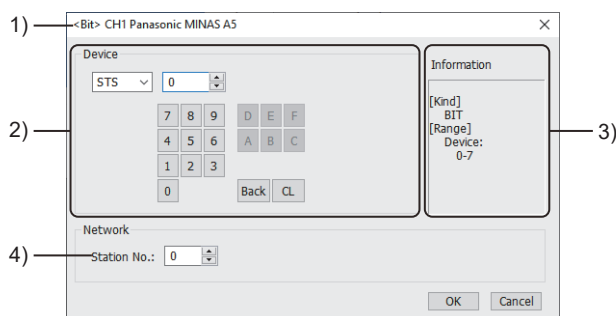
PANASONIC equipment ([Panasonic MINAS A5])

GT 27 GT 25 GT 23 GS 25

| Item | Reference |
|---------------------------------------|--|
| Device setting dialog | ☞ Page 694 Device setting dialog ([Panasonic MINAS A5]) |
| Specifications of bit devices | ☞ Page 695 Monitoring-supported bit devices ([Panasonic MINAS A5]) |
| | ☞ Page 696 Availability of writing/reading data to/from bit devices ([Panasonic MINAS A5]) |
| Specifications of word devices | ☞ Page 697 Monitoring-supported word devices ([Panasonic MINAS A5]) |
| | ☞ Page 698 Availability of writing/reading data to/from word devices ([Panasonic MINAS A5]) |
| Specifications of double-word devices | ☞ Page 699 Monitoring-supported double-word devices ([Panasonic MINAS A5]) |
| | ☞ Page 700 Availability of writing/reading data to/from double-word devices ([Panasonic MINAS A5]) |

Device setting dialog ([Panasonic MINAS A5])

Set a device to be monitored.



1) Title

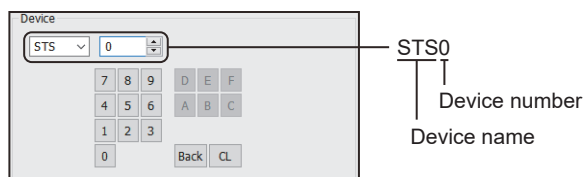
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of STS0



3) [Information]

Displays the setting range of each setting item according to the selected device.

4) [Station No.]

Set the station number.

The setting range is [0] to [31] (direct) or [100] to [115] (indirect).

For indirect specification of a station number, refer to the following.

☞ Page 695 Indirect specification of a station number ([Panasonic MINAS A5])

■ Indirect specification of a station number ([Panasonic MINAS A5])

When you specify any of 100 to 115 for the station number, the value of the corresponding GOT data register (GD10 to GD25) is used as the station number.

The following shows the relationship between the specified station number and the GOT data register (GD).

| Station No. | GOT data register (GD) | Setting range |
|-------------|------------------------|--|
| 100 | GD10 | [0] to [31] Setting a value outside the above range causes a timeout error. |
| 101 | GD11 | |
| : | : | |
| 114 | GD24 | |
| 115 | GD25 | |

Monitoring-supported bit devices ([Panasonic MINAS A5])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

☞ Page 696 Availability of writing/reading data to/from bit devices ([Panasonic MINAS A5])

For the formats of devices, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|---|---------------------------|---------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| STS | Status | Decimal | 0 to 7 | × | × |
| INP | Input signal | Decimal | 0 to 31 | ○ | × |
| OTP | Output signal | Decimal | 0 to 47 | ○ | × |
| AEST | Absolute encoder (Status) | Decimal | 0 to 15 | × | × |
| EPRW | Writing of parameter to EEPROM | Decimal | 0 | × | × |
| ALHC | Clear of user alarm history (in EEPROM as well) | Decimal | 0 | × | × |
| ALMC | Alarm clear | Decimal | 0 | × | × |
| ABSC | Absolute clear | Decimal | 0 | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

📖 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([Panasonic MINAS A5])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| STS | R/- | -/- | -/- | -/- | -/- |
| INP | R/- | -/- | -/- | -/- | -/- |
| OTP | R/- | -/- | -/- | -/- | -/- |
| AEST | R/- | -/- | -/- | -/- | -/- |
| EPRW | -/W | -/- | -/- | -/- | -/- |
| ALHC | -/W | -/- | -/- | -/- | -/- |
| ALMC | -/W | -/- | -/- | -/- | -/- |
| ABSC | -/W | -/- | -/- | -/- | -/- |


Monitoring-supported word devices ([Panasonic MINAS A5])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 698 Availability of writing/reading data to/from word devices ([Panasonic MINAS A5])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|------------------------------------|---------------------------|---------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| STCM | Status (Control modes) | Decimal | 0 | × | × |
| SPD | Present speed | Decimal | 0 | × | × |
| TRQ | Present torque output | Decimal | 0 | × | × |
| AEID | Absolute encoder (Encoder ID) | Decimal | 0 | × | × |
| AEMD | Absolute encoder (Multi-turn data) | Decimal | 0 | × | × |
| ALM | Present alarm data | Decimal | 0 | × | × |
| ALMS | Present alarm data (Sub number) | Decimal | 0 | × | × |
| ALHI | User alarm history | Decimal | 1 to 14 | ○ | × |
| ALHS | User alarm history (Sub number) | Decimal | 1 to 14 | ○ | × |
| PRPR0 | User parameter (Class.0, Property) | Decimal | 0 to 17 | ○ | × |
| PRPR1 | User parameter (Class.1, Property) | Decimal | 0 to 27 | ○ | × |
| PRPR2 | User parameter (Class.2, Property) | Decimal | 0 to 23 | ○ | × |
| PRPR3 | User parameter (Class.3, Property) | Decimal | 0 to 29 | ○ | × |
| PRPR4 | User parameter (Class.4, Property) | Decimal | 0 to 42 | ○ | × |
| PRPR5 | User parameter (Class.5, Property) | Decimal | 0 to 35 | ○ | × |
| PRPR6 | User parameter (Class.6, Property) | Decimal | 0 to 39 | ○ | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from word devices ([Panasonic MINAS A5])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| STCM | R/- | -/- | -/- | -/- |
| SPD | R/- | -/- | -/- | -/- |
| TRQ | R/- | -/- | -/- | -/- |
| AEID | R/- | -/- | -/- | -/- |
| AEMD | R/- | -/- | -/- | -/- |
| ALM | R/- | -/- | -/- | -/- |
| ALMS | R/- | -/- | -/- | -/- |
| ALHI | R/- | -/- | -/- | -/- |
| ALHS | R/- | -/- | -/- | -/- |
| PRPR0 | R/- | -/- | -/- | -/- |
| PRPR1 | R/- | -/- | -/- | -/- |
| PRPR2 | R/- | -/- | -/- | -/- |
| PRPR3 | R/- | -/- | -/- | -/- |
| PRPR4 | R/- | -/- | -/- | -/- |
| PRPR5 | R/- | -/- | -/- | -/- |
| PRPR6 | R/- | -/- | -/- | -/- |


Monitoring-supported double-word devices ([Panasonic MINAS A5])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 700 Availability of writing/reading data to/from double-word devices ([Panasonic MINAS A5])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|--|---------------------------|---------------|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| PRM0 | Parameter (Class.0) | Decimal | 0 to 17 | × | × |
| PRM1 | Parameter (Class.1) | Decimal | 0 to 27 | × | × |
| PRM2 | Parameter (Class.2) | Decimal | 0 to 23 | × | × |
| PRM3 | Parameter (Class.3) | Decimal | 0 to 29 | × | × |
| PRM4 | Parameter (Class.4) | Decimal | 0 to 42 | × | × |
| PRM5 | Parameter (Class.5) | Decimal | 0 to 35 | × | × |
| PRM6 | Parameter (Class.6) | Decimal | 0 to 39 | × | × |
| PRMN0 | User parameter (Class.0, MIN.value) | Decimal | 0 to 17 | × | × |
| PRMN1 | User parameter (Class.1, MIN.value) | Decimal | 0 to 27 | × | × |
| PRMN2 | User parameter (Class.2, MIN.value) | Decimal | 0 to 23 | × | × |
| PRMN3 | User parameter (Class.3, MIN.value) | Decimal | 0 to 29 | × | × |
| PRMN4 | User parameter (Class.4, MIN.value) | Decimal | 0 to 42 | × | × |
| PRMN5 | User parameter (Class.5, MIN.value) | Decimal | 0 to 35 | × | × |
| PRMN6 | User parameter (Class.6, MIN.value) | Decimal | 0 to 39 | × | × |
| PRMX0 | User parameter (Class.0, MAX.value) | Decimal | 0 to 17 | × | × |
| PRMX1 | User parameter (Class.1, MAX.value) | Decimal | 0 to 27 | × | × |
| PRMX2 | User parameter (Class.2, MAX.value) | Decimal | 0 to 23 | × | × |
| PRMX3 | User parameter (Class.3, MAX.value) | Decimal | 0 to 29 | × | × |
| PRMX4 | User parameter (Class.4, MAX.value) | Decimal | 0 to 42 | × | × |
| PRMX5 | User parameter (Class.5, MAX.value) | Decimal | 0 to 35 | × | × |
| PRMX6 | User parameter (Class.6, MAX.value) | Decimal | 0 to 39 | × | × |
| FBPC | Feedback pulse counter | Decimal | 0 | × | × |
| DVC | Present deviation counter | Decimal | 0 | × | × |
| AESD | Absolute encoder (Single turn data) | Decimal | 0 | × | × |
| ESA | External scale deviation and sum of pulses | Decimal | 0 to 1 | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

A

Availability of writing/reading data to/from double-word devices ([Panasonic MINAS A5])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| PRM0 | -/- | R/W | -/- | -/- |
| PRM1 | -/- | R/W | -/- | -/- |
| PRM2 | -/- | R/W | -/- | -/- |
| PRM3 | -/- | R/W | -/- | -/- |
| PRM4 | -/- | R/W | -/- | -/- |
| PRM5 | -/- | R/W | -/- | -/- |
| PRM6 | -/- | R/W | -/- | -/- |
| PRMN0 | -/- | R/- | -/- | -/- |
| PRMN1 | -/- | R/- | -/- | -/- |
| PRMN2 | -/- | R/- | -/- | -/- |
| PRMN3 | -/- | R/- | -/- | -/- |
| PRMN4 | -/- | R/- | -/- | -/- |
| PRMN5 | -/- | R/- | -/- | -/- |
| PRMN6 | -/- | R/- | -/- | -/- |
| PRMX0 | -/- | R/- | -/- | -/- |
| PRMX1 | -/- | R/- | -/- | -/- |
| PRMX2 | -/- | R/- | -/- | -/- |
| PRMX3 | -/- | R/- | -/- | -/- |
| PRMX4 | -/- | R/- | -/- | -/- |
| PRMX5 | -/- | R/- | -/- | -/- |
| PRMX6 | -/- | R/- | -/- | -/- |
| FBPC | -/- | R/- | -/- | -/- |
| DVC | -/- | R/- | -/- | -/- |
| AESD | -/- | R/- | -/- | -/- |
| ESA | -/- | R/- | -/- | -/- |

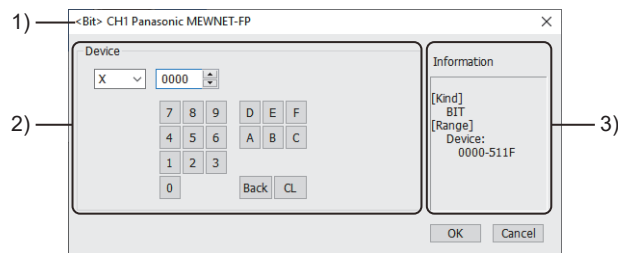
PANASONIC IDS equipment ([Panasonic MEWNET-FP])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|--------------------------------|--|
| Device setting dialog | Page 701 Device setting dialog ([Panasonic MEWNET-FP]) |
| Specifications of bit devices | Page 702 Monitoring-supported bit devices ([Panasonic MEWNET-FP]) |
| | Page 703 Availability of writing/reading data to/from bit devices ([Panasonic MEWNET-FP]) |
| Specifications of word devices | Page 703 Monitoring-supported word devices ([Panasonic MEWNET-FP]) |
| | Page 704 Availability of writing/reading data to/from word devices ([Panasonic MEWNET-FP]) |

Device setting dialog ([Panasonic MEWNET-FP])

Set a device to be monitored.



1) Title

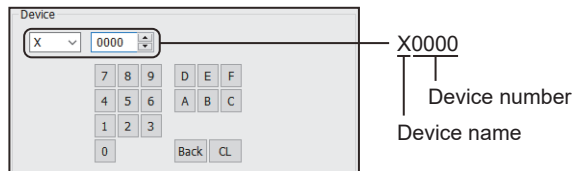
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of X0000




3) [Information]

Displays the setting range of each setting item according to the selected device.


Monitoring-supported bit devices ([Panasonic MEWNET-FP])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 703 Availability of writing/reading data to/from bit devices ([Panasonic MEWNET-FP])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|-----------------|-----------------|---------------------------|---|--|--------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| X ^{*2} | Input relay | Decimal + hexadecimal | X(Word address)(Bit address) Notation example: X5110 The rightmost digit is a bit address. • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| Y ^{*2} | Output relay | Decimal + hexadecimal | Y(Word address)(Bit address) Notation example: Y5110 The rightmost digit is a bit address. • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| L | Link relay | Decimal + hexadecimal | L(Word address)(Bit address) Notation example: L6390 The rightmost digit is a bit address. • Word address (decimal): 000 to 639 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| R | Internal relay | Decimal + hexadecimal | R(Word address)(Bit address) Notation example: R8860 The rightmost digit is a bit address. • Word address (decimal): 000 to 886 • Bit address (hexadecimal): 0 to F | ○ | ○ |
| | Special relay | | R(Word address)(Bit address) Notation example: R9510 The rightmost digit is a bit address. • Word address (decimal): 900 to 951 • Bit address (hexadecimal): 0 to F | | |
| T ^{*3} | Timer contact | Decimal | 0000 to 3071 | ○ | ○ (Not usable as word data) |
| C ^{*3} | Counter contact | Decimal | 0000 to 3071 | ○ | ○ (Not usable as word data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 Only those devices that have been assigned to I/O contacts by peripheral software can be used.

*3 The number of timer and counter devices differs depending on the head numbers of the counter set by the value of the system register (No. 5).

Availability of writing/reading data to/from bit devices ([Panasonic MEWNET-FP])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | | |
|--------------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| X | R/- | -/- | -/- | -/- | -/- |
| Y | R/W | -/- | -/- | -/- | -/- |
| L | R/W | -/- | -/- | -/- | -/- |
| R (internal relay) | R/W | -/- | -/- | -/- | -/- |
| R (special relay) | R/- | -/- | -/- | -/- | -/- |
| T | R/- | -/- | -/- | -/- | -/- |
| C | R/- | -/- | -/- | -/- | -/- |

Monitoring-supported word devices ([Panasonic MEWNET-FP])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 704 Availability of writing/reading data to/from word devices ([Panasonic MEWNET-FP])

For the formats of devices, refer to the following.


 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices ^{*1} | |
|------------------|-------------------------------|---------------------------|------------------------------|--|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| EV ^{*2} | Timer/Counter (Elapsed value) | Decimal | 0 to 3071 | ○ | ○ |
| DT | Data register | Decimal | 0 to 65532 90000 to 90999 | ○ | ○ |
| LD | Link register | Decimal | 0 to 8447 | ○ | ○ |
| FL ^{*3} | File register | Decimal | 0 to 32764 | ○ | ○ |
| WX | Input relay | Decimal | 000 to 511 | ○ | ○ |
| WY | Output relay | Decimal | 000 to 511 | ○ | ○ |
| WR | Internal relay | Decimal | 000 to 886 | ○ | ○ |
| | Special relay | | 900 to 951 | | |
| WL | Link relay | Decimal | 000 to 639 | ○ | ○ |
| SV ^{*2} | Timer/Counter (Set value) | Decimal | 0 to 3071 | ○ | ○ |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

*2 The number of timer and counter devices differs depending on the head numbers of the counter set by the value of the system register (No. 5).

*3 When FP2SH is used, only one bank of 32765 × 3 banks can be monitored.

A

Availability of writing/reading data to/from word devices ([Panasonic MEWNET-FP])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|---------------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| EV | R/W | R/W | -/- | R/W |
| DT | R/W | R/W | -/- | R/W |
| LD | R/W | R/W | -/- | R/W |
| FL | R/W | R/W | -/- | R/W |
| WX | R/- | R/- | -/- | -/- |
| WY | R/W | R/W | -/- | -/- |
| WR (internal relay) | R/W | R/W | -/- | -/- |
| WR (special relay) | R/- | R/- | -/- | -/- |
| WL | R/W | R/W | -/- | -/- |
| SV | R/W | R/W | -/- | R/W |

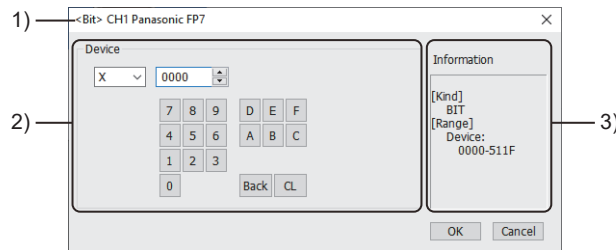
PANASONIC IDS equipment ([Panasonic FP7])

GT 27 GT 25 GT 23 GT 21 GS 25 GS 21

| Item | Reference |
|---------------------------------------|---|
| Device setting dialog | ☞ Page 705 Device setting dialog ([Panasonic FP7]) |
| Specifications of bit devices | ☞ Page 706 Monitoring-supported bit devices ([Panasonic FP7]) |
| | ☞ Page 708 Availability of writing/reading data to/from bit devices ([Panasonic FP7]) |
| Specifications of word devices | ☞ Page 709 Monitoring-supported word devices ([Panasonic FP7]) |
| | ☞ Page 710 Availability of writing/reading data to/from word devices ([Panasonic FP7]) |
| Specifications of double-word devices | ☞ Page 711 Monitoring-supported double-word devices ([Panasonic FP7]) |
| | ☞ Page 711 Availability of writing/reading data to/from double-word devices ([Panasonic FP7]) |

Device setting dialog ([Panasonic FP7])

Set a device to be monitored.



1) Title

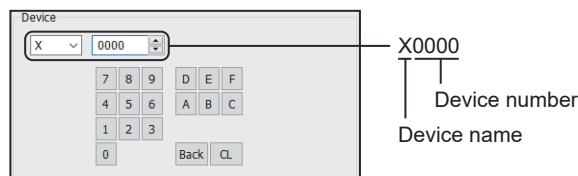
Data type and channel number of the device to be set

2) [Device]

Set the device name and device number.

If a bit number needs to be specified, the setting item is displayed.

Example) Setting of X0000



3) [Information]


Displays the setting range of each setting item according to the selected device.




Monitoring-supported bit devices ([Panasonic FP7])

The following table shows monitoring-supported bit devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 708 Availability of writing/reading data to/from bit devices ([Panasonic FP7])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-------------------|---------------------------|--|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| X | Input relay | Decimal + hexadecimal | X(Word address)(Bit address) Notation example: X5110 The rightmost digit is a bit address. • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | × | × |
| Y | Output relay | Decimal + hexadecimal | Y(Word address)(Bit address) Notation example: Y5110 The rightmost digit is a bit address. • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | × | × |
| L | Link relay | Decimal + hexadecimal | L(Word address)(Bit address) Notation example: L10230 The rightmost digit is a bit address. • Word address (decimal): 0000 to 1023 • Bit address (hexadecimal): 0 to F | × | × |
| R | Internal relay | Decimal + hexadecimal | R(Word address)(Bit address) Notation example: R20470 The rightmost digit is a bit address. • Word address (decimal): 0000 to 2047 • Bit address (hexadecimal): 0 to F | × | × |
| T | Timer contact | Decimal | 0000 to 4095 | × | × |
| C | Counter contact | Decimal | 0000 to 1023 | × | × |
| SR | System relay | Decimal + hexadecimal | SR(Word address)(Bit address) Notation example: SR2230 The rightmost digit is a bit address. • Word address (decimal): 000 to 223 • Bit address (hexadecimal): 0 to F | × | × |
| P | Pulse relay | Decimal + hexadecimal | P(Word address)(Bit address) Notation example: P2550 The rightmost digit is a bit address. • Word address (decimal): 000 to 255 • Bit address (hexadecimal): 0 to F | × | × |
| E | Error alarm relay | Decimal | 0000 to 4095 | × | × |
| IN | Direct input | Decimal + hexadecimal | S(Slot No.):IN(Word address)(Bit address) Notation example: S64:IN620 The rightmost digit is a bit address. • Slot No. (decimal): 1 to 64 • Word address (decimal): 00 to 62 • Bit address (hexadecimal): 0 to F | × | × |
| OT | Direct output | Decimal + hexadecimal | S(Slot No.):OT(Word address)(Bit address) Notation example: S64:OT620 The rightmost digit is a bit address. • Slot No. (decimal): 1 to 64 • Word address (decimal): 00 to 62 • Bit address (hexadecimal): 0 to F | × | × |
| _X | Input relay | Decimal + hexadecimal | PB(Program block No.)_X(Word address)(Bit address) Notation example: PB468_X5110 The rightmost digit is a bit address. • Program block No. (decimal): 1 to 468 • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | × | × |

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|-----------------|---------------------------|---|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| _Y | Output relay | Decimal + hexadecimal | PB(Program block No.)_Y(Word address)(Bit address) Notation example: PB468_Y5110 The rightmost digit is a bit address. • Program block No. (decimal): 1 to 468 • Word address (decimal): 000 to 511 • Bit address (hexadecimal): 0 to F | x | x |
| _L | Link relay | Decimal + hexadecimal | PB(Program block No.)_L(Word address)(Bit address) Notation example: PB468_L10230 The rightmost digit is a bit address. • Program block No. (decimal): 1 to 468 • Word address (decimal): 0000 to 1023 • Bit address (hexadecimal): 0 to F | x | x |
| _R | Internal relay | Decimal + hexadecimal | PB(Program block No.)_R(Word address)(Bit address) Notation example: PB468_R20470 The rightmost digit is a bit address. • Program block No. (decimal): 1 to 468 • Word address (decimal): 0000 to 2047 • Bit address (hexadecimal): 0 to F | x | x |
| _T | Timer contact | Decimal | PB(Program block No.)_T(Word address) Notation example: PB468_T4095 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0000 to 4095 | x | x |
| _C | Counter contact | Decimal | PB(Program block No.)_C(Word address) Notation example: PB468_C1023 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0000 to 1023 | x | x |
| _P | Pulse relay | Decimal + hexadecimal | PB(Program block No.)_P(Word address)(Bit address) Notation example: PB468_P2550 The rightmost digit is a bit address. • Program block No. (decimal): 1 to 468 • Word address (decimal): 000 to 255 • Bit address (hexadecimal): 0 to F | x | x |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from bit devices ([Panasonic FP7])

The following shows whether writing/reading data to/from bit devices is available by device type.

When the device type is other than the bit type, set the device No. in multiples of 16.

R/W: Both read and write

R/-: Read only

-/W: Write only


-/-: No read/write access

| Device name | Device type | | | | |
|-------------|-------------|---------------|----------------|-----------------------|---------------------|
| | Bit | Byte (8 bits) | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) |
| X | R/W | -/- | -/- | -/- | -/- |
| Y | R/W | -/- | -/- | -/- | -/- |
| L | R/W | -/- | -/- | -/- | -/- |
| R | R/W | -/- | -/- | -/- | -/- |
| T | R/- | -/- | -/- | -/- | -/- |
| C | R/- | -/- | -/- | -/- | -/- |
| SR | R/- | -/- | -/- | -/- | -/- |
| P | R/- | -/- | -/- | -/- | -/- |
| E | R/- | -/- | -/- | -/- | -/- |
| IN | R/- | -/- | -/- | -/- | -/- |
| OT | R/W | -/- | -/- | -/- | -/- |
| _X | R/W | -/- | -/- | -/- | -/- |
| _Y | R/W | -/- | -/- | -/- | -/- |
| _L | R/W | -/- | -/- | -/- | -/- |
| _R | R/W | -/- | -/- | -/- | -/- |
| _T | R/- | -/- | -/- | -/- | -/- |
| _C | R/- | -/- | -/- | -/- | -/- |
| _P | R/- | -/- | -/- | -/- | -/- |


Monitoring-supported word devices ([Panasonic FP7])

The following table shows monitoring-supported word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

 Page 710 Availability of writing/reading data to/from word devices ([Panasonic FP7])

For the formats of devices, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|----------------------|---------------------------|--|--------------------------------|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| DT | Data register | Decimal | 0 to 999423 | ○ | ○ |
| LD | Link register | Decimal | 0 to 16383 | ○ | ○ |
| WX | Input relay | Decimal | 000 to 511 | ○ | ○ (Not usable as bit data) |
| WY | Output relay | Decimal | 000 to 511 | ○ | ○ (Not usable as bit data) |
| WR | Internal relay | Decimal | 0000 to 2047 | ○ | ○ (Not usable as bit data) |
| WL | Link relay | Decimal | 0000 to 1023 | ○ | ○ (Not usable as bit data) |
| WI | Direct input | Decimal | S(Slot No.):WI(Word address) Notation example: S64:WI62 • Slot No. (decimal): 1 to 64 • Word address (decimal): 00 to 62 | × | × |
| WO | Direct output | Decimal | S(Slot No.):WO(Word address) Notation example: S64:WO62 • Slot No. (decimal): 1 to 64 • Word address (decimal): 00 to 62 | ○ | ○ (Not usable as bit data) |
| WS | System relay | Decimal | 0 to 223 | × | × |
| UM | Unit memory | Decimal | S(Slot No.):UM(Word address) Notation example: S64:UM524287 • Slot No. (decimal): 1 to 64 • Word address (decimal): 0 to 524287 | ○ | ○ |
| SD | System data register | Decimal | 0 to 255 | × | × |
| _DT | Data register | Decimal | PB(Program block No.)_DT(Word address) Notation example: PB468_DT999423 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0 to 999423 | ○ | ○ |
| _LD | Link register | Decimal | PB(Program block No.)_LD(Word address) Notation example: PB468_LD16383 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0 to 16383 | ○ | ○ |
| _WX | Input relay | Decimal | PB(Program block No.)_WX(Word address) Notation example: PB468_WX511 • Program block No. (decimal): 1 to 468 • Word address (decimal): 000 to 511 | ○ | ○ (Not usable as bit data) |
| _WY | Output relay | Decimal | PB(Program block No.)_WY(Word address) Notation example: PB468_WY511 • Program block No. (decimal): 1 to 468 • Word address (decimal): 000 to 511 | ○ | ○ (Not usable as bit data) |
| _WR | Internal relay | Decimal | PB(Program block No.)_WR(Word address) Notation example: PB468_WR2047 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0000 to 2047 | ○ | ○ (Not usable as bit data) |

A

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|------------|---------------------------|---|--------------------------------|-------------------------------|
| | | | | Assignment to EG devices | Access using a client |
| _WL | Link relay | Decimal | PB(Program block No.)_WL(Word address) Notation example: PB468_WL1023 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0000 to 1023 | ○ | ○ (Not usable as bit data) |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

 GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from word devices ([Panasonic FP7])

The following shows the availability of writing/reading data to/from word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of word data |
| DT | R/W | R/W | -/- | R/W |
| LD | R/W | R/W | -/- | R/W |
| WX | R/W | R/W | -/- | -/- |
| WY | R/W | R/W | -/- | -/- |
| WR | R/W | R/W | -/- | -/- |
| WL | R/W | R/W | -/- | -/- |
| WI | R/- | R/- | -/- | -/- |
| WO | R/W | R/W | -/- | -/- |
| WS | R/- | R/- | -/- | -/- |
| UM | R/W | R/W | -/- | R/W |
| SD | R/- | R/- | -/- | -/- |
| _DT | R/W | R/W | -/- | R/W |
| _LD | R/W | R/W | -/- | R/W |
| _WX | R/W | R/W | -/- | -/- |
| _WY | R/W | R/W | -/- | -/- |
| _WR | R/W | R/W | -/- | -/- |
| _WL | R/W | R/W | -/- | -/- |

Monitoring-supported double-word devices ([Panasonic FP7])

The following table shows monitoring-supported double-word devices.

To check whether writing/reading data to/from each device is available, refer to the following.

Page 711 Availability of writing/reading data to/from double-word devices ([Panasonic FP7])

For the formats of devices, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

○: Available

×: Not available

| Device name | | Device No. representation | Setting range | Specifications of EG devices*1 | |
|-------------|----------------------------|---------------------------|--|--------------------------------|-----------------------|
| | | | | Assignment to EG devices | Access using a client |
| I | Index register | Hexadecimal | 0 to E | × | × |
| TS | Timer set value area | Decimal | 0 to 4095 | × | × |
| TE | Timer elapsed value area | Decimal | 0 to 4095 | × | × |
| CS | Counter set value area | Decimal | 0 to 1023 | × | × |
| CE | Counter elapsed value area | Decimal | 0 to 1023 | × | × |
| _TS | Timer set value area | Decimal | PB(Program block No.)_TS(Word address) Notation example: PB468_TS4095 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0 to 4095 | × | × |
| _TE | Timer elapsed value area | Decimal | PB(Program block No.)_TE(Word address) Notation example: PB468_TE4095 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0 to 4095 | × | × |
| _CS | Counter set value area | Decimal | PB(Program block No.)_CS(Word address) Notation example: PB468_CS1023 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0 to 1023 | × | × |
| _CE | Counter elapsed value area | Decimal | PB(Program block No.)_CE(Word address) Notation example: PB468_CE1023 • Program block No. (decimal): 1 to 468 • Word address (decimal): 0 to 1023 | × | × |

*1 For the devices assigned to EG devices (gateway devices) and the compatible clients, refer to the following.

GT Designer3 (GOT2000) Screen Design Manual

Availability of writing/reading data to/from double-word devices ([Panasonic FP7])

The following shows the availability of writing/reading data to/from double-word devices by device type.

R/W: Both read and write

R/-: Read only

-/W: Write only

-/-: No read/write access

| Device name | Device type | | | |
|-------------|----------------|-----------------------|---------------------|-------------------------|
| | Word (16 bits) | Double-word (32 bits) | Quad-word (64 bits) | Bit of double-word data |
| I | -/- | R/W | -/- | -/- |
| TS | -/- | R/W | -/- | -/- |
| TE | -/- | R/W | -/- | -/- |
| CS | -/- | R/W | -/- | -/- |
| CE | -/- | R/W | -/- | -/- |
| _TS | -/- | R/W | -/- | -/- |
| _TE | -/- | R/W | -/- | -/- |
| _CS | -/- | R/W | -/- | -/- |
| _CE | -/- | R/W | -/- | -/- |

REVISIONS

* The manual number is given on the bottom left of the back cover.

| Revision date | * Manual Number | Revision |
|---------------|--------------------|---|
| Sep. 2013 | SH(NA)-081198ENG-A | Compatible with GT Works3 Version1.100E |
| Nov. 2013 | SH(NA)-081198ENG-B | Compatible with GT Works3 Version1.104J • Changing the icons of the supported models |
| Jan. 2014 | SH(NA)-081198ENG-C | Compatible with GT Works3 Version1.108N • The AZBIL (formerly Yamatake Corporation) temperature controller (AHC2001) is supported. |
| Apr. 2014 | SH(NA)-081198ENG-D | Compatible with GT Works3 Version1.111R • GT25 and GS21 have been added. • The enlargement of the communication setting range of the TOSHIBA PLC is supported. |
| Oct. 2014 | SH(NA)-081198ENG-E | Compatible with GT Works3 Version1.122C • GT21 is added. • IP Filter setting is supported. |
| Jan. 2015 | SH(NA)-081198ENG-F | Compatible with GT Works3 Version1.126G • GT21 corresponding to IAI robot controller connection. |
| Apr. 2015 | SH(NA)-081198ENG-G | Compatible with GT Works3 Version1.130L • GT27 is added (GT2705-VTBD). • GT21 is added (GT2104-RTBD, GT2103-PMBDS2, GT2103-PMBLS). |
| Jun. 2015 | SH(NA)-081198ENG-H | Compatible with GT Works3 Version1.134Q • TOSHIBA Unified Controller nv |
| Oct. 2015 | SH(NA)-081198ENG-I | Compatible with GT Works3 Version1.144A • GT21 is added (GT2104-PMBD, GT2104-PMBDS). • GT21 corresponding to KEYENCE PLC (Ethernet connection). |
| Dec. 2015 | SH(NA)-081198ENG-J | Compatible with GT Works3 Version1.150G • Station blocking function compatible Ethernet connection • Station monitoring function of the following connection CC-Link IE controller network connection CC-Link IE Field Network connection • GT21 corresponding to connection to OMRON temperature controller |
| May 2016 | SH(NA)-081198ENG-K | Compatible with GT Works3 Version1.155M • GT21 is added (GT2105-QTBDS, GT2105-QMBDS, GT2104-PMBDS2, GT2104-PMBLS). • Some corrections |
| Aug. 2016 | SH(NA)-081198ENG-L | Compatible with GT Works3 Version1.160S • IAI robot controller connection supported device is added (RO,JIM,PNM,OSC). • GT21 is added AZBIL control equipment. • Panasonic Industrial Devices SUNX FP7 series connection is supported. • GOT2000 series Ethernet communication unit is supported. |
| Jan. 2017 | SH(NA)-081198ENG-M | Compatible with GT Works3 Version1.170C • GT2107-W is added (GT2107-WTBD, GT2107-WTSD). • OMRON temperature controller models are added. <THERMAC NEO series> E5AN-H, E5CN-H, E5EN-H, E5AN-HT, E5CN-HT, E5EN-HT <E5□C series> E5CC(-T,-B), E5DC, E5GC, E5EC(-T,-B), E5AC(-T) <THERMACR series> E5AR(-T), E5ER(-T) • Compatible KEYENCE PLCs are added. (KV7000 series) |
| Apr. 2017 | SH(NA)-081198ENG-N | Compatible with GT Works3 Version1.175H • GT25 is added (GT25-W). • OMRON PLC NJ series is supported. |
| Jun. 2017 | SH(NA)-081198ENG-O | Compatible with GT Works3 Version1.180N • GT25 is added (GT2505-V). • For Ethernet connection, the default value of the GOT station No. is changed to [18]. • When connecting to OMRON PLC NJ Series, the communication module CJ1W-EIP21 is supported. |
| Oct. 2017 | SH(NA)-081198ENG-P | Some corrections |

| Revision date | * Manual Number | Revision |
|---------------|---------------------|--|
| Dec. 2017 | SH(NA)-081198ENG-Q | Compatible with GT Works3 Version 1.190Y • Compatible with avoiding overlapping of [GOT Communication Port No.] |
| Apr. 2018 | SH(NA)-081198ENG-R | Compatible with GT Works3 Version 1.195D • Compatible OMRON PLC are added (NX series). |
| Jul. 2018 | SH(NA)-081198ENG-S | Compatible with GT Works3 Version 1.200J • Compatible OMRON temperature controllers are added (E5□D series). |
| Oct. 2018 | SH(NA)-081198ENG-T | Compatible with GT Works3 Version 1.205P • GT2505-V supports the following connection using the RS-232/485 signal conversion adapter (GT14-RS2T4-9P). Connection to azbil control equipment Connection to omron temperature controller Connection to shinko technos indicating controller • Compatible OMRON PLCs are added (NX701). • Compatible KEYENCE PLCs are added (KV-N14□□, KV-N24□□, KV-N40□□, KV-N60□□, KV-NC32T). • Compatible TOSHIBA Unified Controller nv are added. <Controller type1 light> PUM11, PUM12, PUM14 |
| Jan. 2019 | SH(NA)-081198ENG-U | Compatible with GT Works3 Version 1.210U • GT2505-V supports the following connection using the RS-232/485 signal conversion adapter (GT14-RS2T4-9P). Connection to CHINO controller |
| Apr. 2019 | SH(NA)-081198ENG-V | Compatible with GT Works3 Version 1.215Z • Compatible OMRON PLCs are added (NX102). |
| Jul. 2019 | SH(NA)-081198ENG-W | Some corrections |
| Oct. 2019 | SH(NA)-081198ENG-X | Some corrections |
| Jan. 2020 | SH(NA)-081198ENG-Y | Compatible with GT Works3 Version 1.230Q • IAI robot controller models (PCON-CB, PCON-CFB, ACON-CB, SCON-CB, EC) have been added. • Devices used for connecting IAI robot controller have been added. |
| Apr. 2020 | SH(NA)-081198ENG-Z | Compatible with GT Works3 Version 1.235V • The time setting function of the GOT is supported for OMRON PLC NJ/NX Series by obtaining the clock data. |
| Jun. 2020 | SH(NA)-081198ENG-AA | Compatible with GT Works3 Version 1.240A • The company name of TOSHIBA MACHINE CO., LTD. has been changed to SHIBAURA MACHINE CO., LTD. • Supported KEYENCE PLC (KV8000 series) has been added. • Supported OMRON PLC (CP2E) has been added. • Supported Panasonic IDS PLC (FP0H) has been added. |
| Oct. 2020 | SH(NA)-081198ENG-AB | Some corrections |
| Nov. 2020 | SH(NA)-081198ENG-AC | Some corrections |
| Jan. 2021 | SH(NA)-081198ENG-AD | Compatible with GT Works3 Version 1.250L • GT25 is added (GT2512-WXTBD, GT2512-WXTSD). • GS21 is added (GS2110-WTBD-N, GS2107-WTBD-N). |
| Apr. 2021 | SH(NA)-081198ENG-AE | Compatible with GT Works3 Version 1.255R • The model names and communication driver name for connection to CHINO controllers have been changed. • Connection to Panasonic IDS PLC (FP2, FP2SH) using the multi-communication unit and communication block is supported. |
| Jul. 2021 | SH(NA)-081198ENG-AF | Compatible with GT Works3 Version 1.260W • IAI robot controller models (RCON) have been added. • Panasonic IDS PLC (FP-XH) has been added. • Changed the name of the direct CPU connection to the direct CPU connection (serial). |
| Oct. 2021 | SH(NA)-081198ENG-AG | Compatible with GT Works3 Version 1.265B • SHINKO indicating controller models (ACD-13A, ACR-13A, and BC□2) have been added. |
| Jan. 2022 | SH(NA)-081198ENG-AH | Compatible with GT Works3 Version 1.270G • Connectable IAI robot controller models (EC series) have been added. • Connectable JTEKT PLC model (PC10G) has been added. |
| Jul. 2022 | SH(NA)-081198ENG-AJ | Some corrections |
| Oct. 2022 | SH(NA)-081198ENG-AK | Some corrections |

| Revision date | * Manual Number | Revision |
|---------------|---------------------|--|
| Jan. 2023 | SH(NA)-081198ENG-AL | Compatible with GT Works3 Version1.290C <ul style="list-style-type: none"> The name of the communication driver for Ethernet connection to OMRON PLC has been changed. |
| Apr. 2023 | SH(NA)-081198ENG-AM | Compatible with GT Works3 Version1.295H <ul style="list-style-type: none"> GS25 model (GS2512-WXTBD) has been added. |
| Jul. 2023 | SH(NA)-081198ENG-AN | Some corrections |
| Oct. 2023 | SH(NA)-081198ENG-AP | <ul style="list-style-type: none"> Connection to KEYENCE PLC (KV-8000 series, KV-7000 series) using the multi-communication unit (KV-XL402) is supported. |
| Jan. 2024 | SH(NA)-081198ENG-AQ | Some corrections |

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

©2013 MITSUBISHI ELECTRIC CORPORATION

WARRANTY

Please check the following product warranty details before using this product.

■ 1. Gratis Warranty Term and Gratis Warranty Range

If any faults or defects (hereinafter "Failure") found to be the responsibility of Mitsubishi occurs during use of the product within the gratis warranty term, the product shall be repaired at no cost via the sales representative or Mitsubishi Service Company. However, if repairs are required onsite at domestic or overseas location, expenses to send an engineer will be solely at the customer's discretion.

Mitsubishi shall not be held responsible for any re-commissioning, maintenance, or testing on-site that involves replacement of the failed module.

(1) Gratis Warranty Term

The gratis warranty term of the product shall be for thirty-six (36) months after the date of purchase or delivery to a designated place.

Note that after manufacture and shipment from Mitsubishi, the maximum distribution period shall be six (6) months, and the longest gratis warranty term after manufacturing shall be forty-two (42) months.

The gratis warranty term of repair parts shall not exceed the gratis warranty term before repairs.

(2) Gratis Warranty Range

- (a) The customer shall be responsible for the primary failure diagnosis unless otherwise specified. If requested by the customer, Mitsubishi Electric Corporation or its representative firm may carry out the primary failure diagnosis at the customer's expense. The primary failure diagnosis will, however, be free of charge should the cause of failure be attributable to Mitsubishi Electric Corporation.
- (b) The range shall be limited to normal use within the usage state, usage methods, and usage environment, etc., which follow the conditions and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.
- (c) Even within the gratis warranty term, repairs shall be charged in the following cases.
 - Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
 - Failure caused by unapproved modifications, etc., to the product by the user.
 - When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
 - Failure that could have been avoided if consumable parts designated in the instruction manual had been correctly serviced or replaced.
 - Replacing consumable parts such as a battery, backlight, and fuse.
 - Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
 - Failure caused by reasons that could not be predicted by scientific technology standards at the time of shipment from Mitsubishi.
 - Any other failure found not to be the responsibility of Mitsubishi or that admitted not to be so by the user.

■ 2. Onerous repair term after discontinuation of production

- (1) Mitsubishi shall accept onerous product repairs for seven (7) years after production of the product is discontinued. Discontinuation of production shall be notified with Mitsubishi Technical Bulletins, etc.
- (2) Mitsubishi shall not accept a request for product supply (including spare parts) after production is discontinued.

■ 3. Overseas service

Overseas, repairs shall be accepted by Mitsubishi's local overseas FA Center. Note that the repair conditions at each FA Center may differ.

■ 4. Exclusion of loss in opportunity and secondary loss from warranty liability

Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to:

- (1) Damages caused by any cause found not to be the responsibility of Mitsubishi.
- (2) Loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products.
- (3) Special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products.
- (4) Replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

■ 5. Changes in product specifications

The specifications given in the catalogs, manuals, or technical documents are subject to change without prior notice.

■ 6. Product application

- (1) In using the Mitsubishi graphic operation terminal, the usage conditions shall be that the application will not lead to a major accident even if any problem or fault should occur in the graphic operation terminal device, and that backup and fail-safe functions are systematically provided outside of the device for any problem or fault.
- (2) The Mitsubishi graphic operation terminal has been designed and manufactured for applications in general industries, etc. Thus, applications in which the public could be affected such as in nuclear power plants and other power plants operated by respective power companies, and applications in which a special quality assurance system is required, such as for Railway companies or Public service shall be excluded from the graphic operation terminal applications. In addition, applications in which human life or property could be greatly affected, such as in aircraft, medical, railway applications, incineration and fuel devices, manned transportation equipment, recreation and amusement devices, safety devices, shall also be excluded from the graphic operation terminal. Even for the above applications, however, Mitsubishi Electric Corporation may consider the possibility of an application, provided that the customer notifies Mitsubishi Electric Corporation of the intention, the application is clearly defined and any special quality is not required, after the user consults the local Mitsubishi representative.

Intellectual Property Rights

■Trademarks

MELDAS, MELSEC, iQ Platform, MELSOFT, GOT, CC-Link, CC-Link/LT, and CC-Link IE are trademarks or registered trademarks of Mitsubishi Electric Corporation in Japan and other countries.

Microsoft, Microsoft Access, Excel, SQL Server, Visual Basic, Visual C++, Visual C#, Windows, Windows NT, Windows Server, and Windows Vista are trademarks of the Microsoft group of companies.

MODBUS is a trademark of Schneider Electric SA.

DeviceNet is a trademark of ODVA (Open DeviceNet Vendor Association, Inc.).

VNC is a registered trademark of RealVNC Ltd. in the United States and other countries.

Unicode is a trademark or registered trademark of Unicode, Inc. in the United States and other countries.

PictBridge is a registered trademark of Canon Inc.

Adobe and Adobe Reader are registered trademarks of Adobe Systems Incorporated.

Oracle and JavaScript are registered trademarks of Oracle Corporation and/or its affiliates in the United States and other countries.

QR Code is a trademark or registered trademark of DENSO WAVE INCORPORATED in Japan, the United States, and/or other countries.

Anybus is a registered trademark of HMS Industrial Networks AB.

Android and Google Chrome are trademarks or registered trademarks of Google Inc.

IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.

Safari and iPhone are trademarks of Apple Inc. registered in the United States and other countries. The iPhone trademark is used under license from AIPHONE CO., LTD.

Intel and Intel Core are trademarks or registered trademarks of Intel Corporation in the United States and other countries.

Other company and product names herein are trademarks or registered trademarks of their respective owners.

■Copyrights

The screens (screenshots) are used in accordance with the Microsoft Corporation guideline.

SH(NA)-081198ENG-AQ(2401)MEE

MODEL: GOT2000-CON2-SW1-E

MODEL CODE: -

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
NAGOYA WORKS: 1-14, YADA-MINAMI 5-CHOME, HIGASHI-KU, NAGOYA 461-8670, JAPAN

When exported from Japan, this manual does not require application to the
Ministry of Economy, Trade and Industry for service transaction permission.

Specifications subject to change without notice.