



**MITSUBISHI
ELECTRIC**

Mitsubishi Graphic Operation Terminal

Changes for the Better

GOT

Simply the best **est!**

GRAPHIC OPERATION TERMINAL

GOT1000

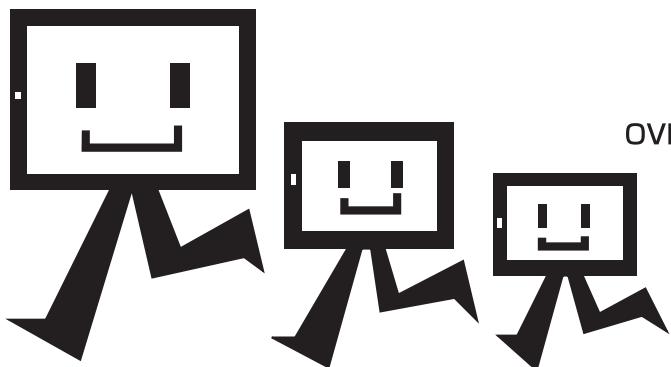
SOFTWARE

FUNCTION

CONNECTION
CONFIGURATION

COMPLIANCE WITH
OVERSEAS STANDARDS

EQUIPMENT,
SOFTWARE,
AND MANUALS



CC-Link IE

MELFANS
web
MITSUBISHI ELECTRIC
FA NETWORK SERVICE ON WORLD WIDE

<http://MitsubishiElectric.co.jp/melfansweb/english/>

MELSOFT iq
Platform

GLOSSARY



INTRODUCTION

GOT1000 Series Handbook describes the basic information about GOT1000 series of MITSUBISHI Graphic Operation Terminal (hereinafter abbreviated as GOT), the information required for the GOT installation, and others.

For more details, refer to the manuals shown in this handbook.



HOW TO USE THIS HANDBOOK

Be sure to use this handbook together with the following catalogs and manuals.

■ Catalog

The following catalog describes the information about new functions, the product lineup, the cost, and others.

A version of the catalog corresponds to this handbook
L(NA)08054-G (1008) (MDOC)

■ Manuals related to GOT1000 series

The manuals describe the detailed information for the GOT.

For details of the information shown in this handbook, refer to the related manuals of GOT1000 series.

The manuals related to GOT1000 series can be downloaded from the MITSUBISHI ELECTRIC FA NETWORK SERVICE website (<http://wwwf2.mitsubishielectric.co.jp/english/index.html>).



MANUALS

For details of the connection configuration and software operation/installation, refer to the following manuals.

■ For details about GOT hardware

- | | |
|--------------------------------------|-----------------------------------|
| • GT16 User's Manual (Hardware) | SH-080928ENG (1D7MD3) |
| • GT16 User's Manual (Basic Utility) | SH-080929ENG (1D7MD4) |
| • GT15 User's Manual | SH-080528ENG (1D7M23) |
| • GT11 User's Manual | JY997D17501 (09R815) |
| • GT10 User's Manual | JY997D24701 (09R819) |
| • GT16 Handy GOT User's Manual* | JY997D41201, JY997D41202 (09R821) |
| • GT11 Handy GOT User's Manual | JY997D20101, JY997D20102 (09R817) |
- *: GT16 Handy GOT is coming soon.

■ For details about screen configurations, functions, and usage of GT

SoftGOT1000

- GT SoftGOT1000 Version3 Operating Manual for GT Works3
SH-080860ENG (1D7MA9)

■ For details about basic operation of screen design, data transfer operation, and common settings of GT Designer3

- GT Designer3 Version1 Screen Design Manual (Fundamentals)
SH-080866ENG (1D7MB9)

■ For details about specifications and setting methods of object functions

- GT Designer3 Version1 Screen Design Manual (Functions)
SH-080867ENG (1D7MC1)

■ For details about screen configurations, functions, and usage of GT Simulator3

- GT Simulator3 Version1 Operating Manual for GT Works3
SH-080861ENG (1D7MB1)

■ For details about connection configurations and how to make cable

- GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3
SH-080868ENG (1D7MC2)
- GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3
SH-080869ENG (1D7MC3)
- GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3
SH-080870ENG (1D7MC4)
- GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3
SH-080871ENG (1D7MC5)

■ For details about extended functions and option functions

- GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3
SH-080863ENG (1D7MB3)

■ For details about specifications, system configurations, and setting methods of gateway function

- GOT1000 Series Gateway Functions Manual for GT Works3
SH-080858ENG (1D7MA7)

■ For details about specifications, system configurations, and setting methods of MES interface function

- GOT1000 Series MES Interface Function Manual for GT Works3
SH-080859ENG (1D7MA8)



NEWLY ADDED FUNCTIONS

The following shows newly added functions.

As of September 2010

■ Added new model

- Four models of 10.4 type (GT1675-VNBA, GT1675-VNBD, GT1672-VNBA and GT1672-VNBD) and two models of 8.4 type (GT1662-VNBA and GT1662-VNBD) are added to GT16.

GT16 User's Manual (Hardware)

GT16 User's Manual (Basic Utility)

- Four models (GT1030-LBL, GT1030-LWL, GT1030-LBLW and GT1030-LWLW) are added to GT10.

GT10 User's Manual

- GT16 Handy (GT1665HS-VTBD) is added.*

GT16 Handy GOT User's Manual*

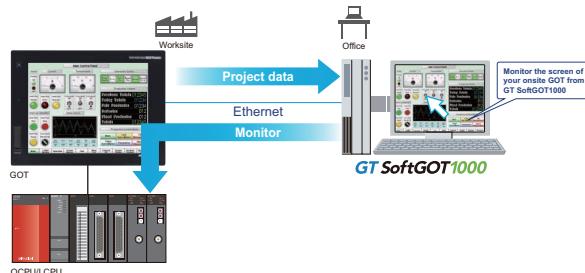
*: GT16 Handy GOT is coming soon.

■ GOT enhanced by new functions

- SoftGOT-GOT link function

Connect GT SoftGOT1000 with GOT by an Ethernet connection.

Use the GOT's project data with GT SoftGOT1000 to monitor connected equipment.



- Backlight intensity adjustment

Consider the conditions in the operation environment (daytime/nighttime etc.) and user comfort.

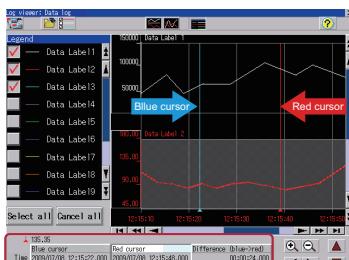
You can adjust the brightness of the backlight while viewing the user screen.



● Log viewer function

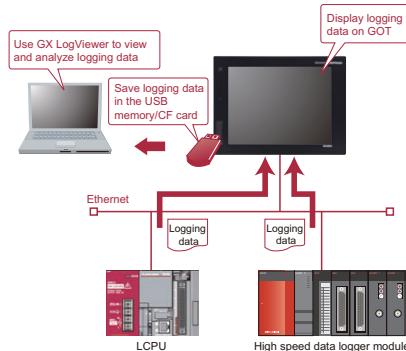
The logging data collected by LCPU and high speed data logger module can be displayed on GOT.

By displaying two cursors (multi cursor), the changes of data can easily be checked.



You do not need to have any PCs on site.
Check logging data from GOT, and you can take corrective actions quickly.

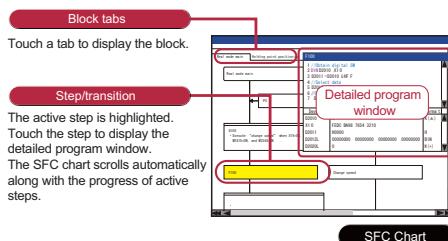
The function enables to store the logging data using the front USB interface of the GOT, as well as to browse the logging data and change the logging setting on GX LogViewer by connecting the personal computer. (FA transparent function)



● Motion SFC monitor function

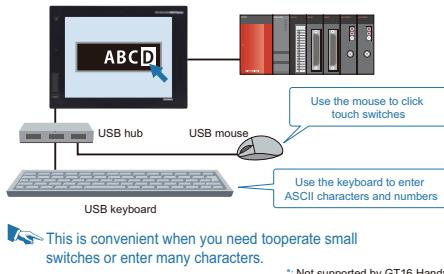
Viewing the batch program monitor or the active step list enables you to can see the whole status at a glance.

Motion SFC programs of Mitsubishi Motion Controller (Q Series) can be monitored.



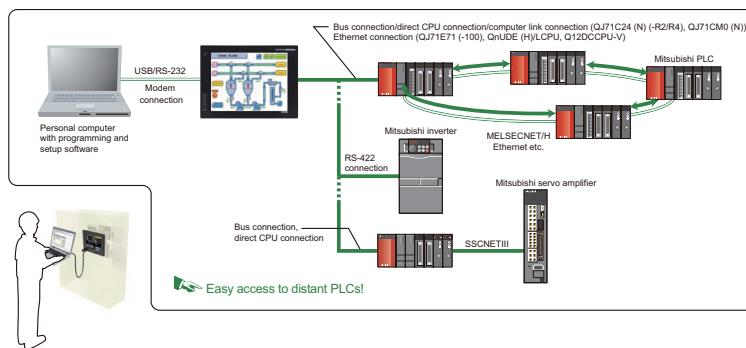
● USB mouse/keyboard connection

In a user-created screen, you can use your mouse to click touch switches and your keyboard to enter ASCII characters and numbers.



● FA transparent function

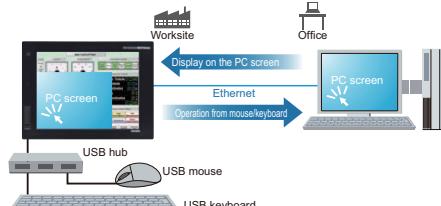
Newly supports MR Configurator2, MX Component/MX Sheet and GX LogViewer.



● Remote personal computer operation function (Ethernet)

A personal computer at a remote location can be operated from an onsite GOT when they are connected via Ethernet.

A USB mouse/keyboard can be connected to the front USB interface.



You can view files such as manuals stored on your personal computer, or you can use browsers and engineering tools.

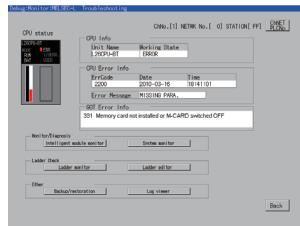
*: Not supported by GT16□□-VNB□, GT16 Handy

*: The license key (GT16-PCRKEY) is necessary.

● MELSEC-L troubleshooting function

The maintenance screen dedicated to LCPU is installed. Without designing new screens and even without using a personal computer, you can check CPU status/error information easily.

Just touch the dedicated screen. You can jump to a function screen such as the intelligent unit monitor to quickly take corrective actions on site.



■ Supporting the motion controller CPU (Q series)

GT10 supports the connection with the motion controller CPU (Q series).

■ Expanded manufacturers and models of controllers

● GT16/GT15/GT11/GT10

Connections with the MELSEC-L series, C language controller (Q12DCCPU-V), and MELSEC-WS series are supported.

Programmable controllers (Q50UDEHCPU and Q100UDEHCPU) are added.

Motion controllers (Q172DCPU-S1 and Q173DCPU-S1) are added.

☞ 4.1 MITSUBISHI Programmable Controller

Third party programmable controller

Connection with the SICK safety controller is supported.

☞ 4.3.18 SICK safety controller

Third party robot controller

Connection with the IAI robot controller is supported.

☞ 4.4.3 IAI robot controller

● GT16/GT15/GT11

Third party servo amplifier

Connection with the Panasonic servo amplifier is supported.

☞ 4.4.2 Panasonic servo amplifier

● GT16/GT15

Connection with the CC-Link IE field network head module is supported.

☞ 4.1 MITSUBISHI Programmable Controller

ABBREVIATIONS AND GENERIC TERMS

The following shows the abbreviations and generic terms used in this handbook.

GOT

Abbreviations and generic terms		Description
GOT1000 Series	GT1695	Abbreviation of GT1695M-XBA, GT1695M-XTBD
	GT1685	Abbreviation of GT1685M-STBA, GT1685M-STBD
	GT1675	Abbreviation of GT1675M-STBA, GT1675M-STBD
		Abbreviation of GT1675M-VTBA, GT1675M-VTBD
		Abbreviation of GT1675-VNBA, GT1675-VNBD
	GT1672	Abbreviation of GT1672-VNBA, GT1672-VNBD
	GT1665	Abbreviation of GT1665M-STBA, GT1665M-STBD
		Abbreviation of GT1665M-VTBA, GT1665M-VTBD
	GT1662	Abbreviation of GT1662-VNBA, GT1662-VNBD
	GT16	Abbreviation of GT1695, GT1685, GT1675, GT1672, GT1665, GT1662
	GT1595	Abbreviation of GT1595-XTBA, GT1595-XTBD
	GT1585	Abbreviation of GT1585V-STBA, GT1585V-STBD
		Abbreviation of GT1585-STBA, GT1585-STBD
	GT157□	Abbreviation of GT1575V-STBA, GT1575V-STBD
		Abbreviation of GT1575-STBA, GT1575-STBD
		Abbreviation of GT1575-VTBA, GT1575-VTBD
		Abbreviation of GT1575-VNBA, GT1575-VNBD
		Abbreviation of GT1572-VNBA, GT1572-VNBD
	GT156□	Abbreviation of GT1565-VTBA, GT1565-VTBD
	GT1562	Abbreviation of GT1562-VNBA, GT1562-VNBD
	GT155□	Abbreviation of GT1555-VTBD
		Abbreviation of GT1555-QTBD, GT1555-QSBD
		Abbreviation of GT1550-QLBD
	GT15	Abbreviation of GT1595, GT1585, GT157□, GT156□, GT155□
	GT115□	Abbreviation of GT1155-QTBDQ, GT1155-QSBDQ, GT1155-QTBD, GT1155-QSBD
		Abbreviation of GT1150-QLBDQ, GT1150-QLBDA, GT1150-QLBD
Handy GOT	GT1155HS-Q	Abbreviation of GT1155HS-QSBD
GOT	GT1150HS-Q	Abbreviation of GT1150HS-QLBD
GT11		Abbreviation of GT115□, GT11 Handy GOT,
GT105□	GT1055-Q	Abbreviation of GT1055-QSBD
	GT1050-Q	Abbreviation of GT1050-QBBD
GT104□	GT1045-Q	Abbreviation of GT1045-QSBD
	GT1040-Q	Abbreviation of GT1040-QBBD
GT1030		Abbreviation of GT1030-LBD, GT1030-LBD2, GT1030-LBL, GT1030-LBDW, GT1030-LBDW2, GT1030-LBLW, GT1030-LWD, GT1030-LWD2, GT1030-LWL, GT1030-LWDW, GT1030-LWDW2, GT1030-LWLW
GT1020		Abbreviation of GT1020-LBD, GT1020-LBD2, GT1020-LBL, GT1020-LBDW, GT1020-LBDW2, GT1020-LBLW, GT1020-LWD, GT1020LWD2, GT1020-LWL, GT1020-LWDW, GT1020-LWDW2, GT1020-LWLW
GT10		Abbreviation of GT105□, GT104□, GT1030, GT1020
GT SoftGOT1000		Abbreviation of GT SoftGOT1000
GOT900 Series		Abbreviation of GOT-A900 series, GOT-F900 series
GOT800 Series		Abbreviation of GOT-800 series

■ Others

Abbreviations and generic terms	Description
IAI	Abbreviation of IAI Corporation
OMRON	Abbreviation of OMRON Corporation
KEYENCE	Abbreviation of KEYENCE CORPORATION
KOYO EI	Abbreviation of KOYO ELECTRONICS INDUSTRIES CO., LTD.
SHARP	Abbreviation of Sharp Manufacturing Systems Corporation
JTEKT	Abbreviation of JTEKT Corporation
SHINKO	Abbreviation of Shinko Technos Co., Ltd.
CHINO	Abbreviation of CHINO CORPORATION
TOSHIBA	Abbreviation of TOSHIBA CORPORATION
TOSHIBA MACHINE	Abbreviation of TOSHIBA MACHINE CO., LTD.
HITACHI IES	Abbreviation of Hitachi Industrial Equipment Systems Co., Ltd.
HITACHI	Abbreviation of Hitachi, Ltd.
FUJI FA	Abbreviation of Fuji Electric FA Components & Systems Co., Ltd.
PANASONIC	Abbreviation of Panasonic Corporation
PANASONIC EW	Abbreviation of Panasonic Electric Works Co., Ltd.
FUJI SYS	Abbreviation of Fuji Electric Systems Co., Ltd.
YASKAWA	Abbreviation of YASKAWA Electric Corporation
YAMATAKE	Abbreviation of Yamatake Corporation
YOKOGAWA	Abbreviation of Yokogawa Electric Corporation
ALLEN-BRADLEY	Abbreviation of products manufactured by Rockwell Automation, Inc.
GE FANUC	Abbreviation of GE Fanuc Automation Corporation GE Fanuc Automation Corporation
LS IS	Abbreviation of LS Industrial Systems Co., Ltd.
SCHNEIDER	Abbreviation of Schneider Electric SA
SICK	Abbreviation of SICK AG
SIEMENS	Abbreviation of Siemens AG
RKC	Abbreviation of RKC INSTRUMENT INC.
HIRATA	Abbreviation of Hirata Corporation
PLC	Abbreviation of programmable controller
Temperature controller	Generic term for temperature controller manufactured by each corporation
Indicating controller	Generic term for indicating controller manufactured by each corporation
CHINO controller	Abbreviation of indicating controller manufactured by CHINO CORPORATION
PC CPU module	Abbreviation of PC CPU Unit manufactured by CONTEC CO., LTD
GOT (server)	Abbreviation of GOTs that use the server function
GOT (client)	Abbreviation of GOTs that use the client function
Windows® font	Abbreviation of TrueType font and OpenType font available for Windows® (Differs from the True Type fonts settable with GT Designer3)
Intelligent function module	Indicates the modules other than the PLC CPU, power supply module and I/O module that are mounted to the base unit.
MODBUS® /RTU	Generic term for the protocol designed to use MODBUS® protocol messages on a serial communication.
MODBUS® /TCP	Generic term for the protocol designed to use MODBUS® protocol messages on a TCP/IP network.

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1. GOT

This chapter describes the GOT overview.

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1. GOT

1.1 Product Lineup

● GT16

With a variety of integrated functions, such as Ethernet and multimedia

15 type	TFT (High-brightness, wide viewing angle)
GT1695M-XTBA	AC type
GT1695M-XTBD	DC type

Resolution: XGA 1024x768

Display color: 65536 colors

Multimedia, video/RGB model



12.1 type	TFT (High-brightness, wide viewing angle)
GT1685M-STBA	AC type
GT1685M-STBD	DC type

Resolution: SVGA 800x600

Display color: 65536 colors

Multimedia, video/RGB model



10.4 type	TFT (High intensity and wide angle view)
GT1675M-STBA	AC type
GT1675M-STBD	DC type

Resolution: SVGA 800x600

Display color: 65536 colors

Multimedia, video/RGB model



10.4 type	TFT (High intensity and wide angle view)
GT1675M-VTBA	AC type
GT1675M-VTBD	DC type

Resolution: VGA 640x480

Display color: 65536 colors

Multimedia, video/RGB model



10.4 type	TFT
GT1675-VNBA	AC type
GT1675-VNBD	DC type

Resolution: VGA 640x480

Display color: 4096 colors



10.4 type	TFT
GT1672-VNBA	AC type
GT1672-VNBD	DC type

Resolution: VGA 640x480

Display color: 16 colors



8.4
typeTFT (High-brightness,
wide viewing angle)

GT1665M-STBA AC type

GT1665M-STBD DC type

Resolution: SVGA 800x600
Display color: 65536 colors
Multimedia, video/RGB model8.4
typeTFT (High-brightness,
wide viewing angle)

GT1665M-VTBA AC type

GT1665M-VTBD DC type

Resolution: VGA 640x480
Display color: 65536 colors
Multimedia, video/RGB model8.4
type

TFT

GT1662-VNBA AC type

GT1662-VNBD DC type

Resolution: VGA 640x480
Display color: 16 colorsComing
soon6.5
type

Handy GOT/ TFT (High-brightness, wide viewing angle)

GT1665HS-VTBD DC type

Resolution: VGA 640x480
Display color: 65536 colors

● GT15

Wide range of use from network to stand alone

15 type	TFT (High intensity and wide angle view)
GT1595-XTBA	AC type
GT1595-STBD	DC type

Resolution: XGA 1024x768
Display color: 65536 colors



12.1 type	TFT (High intensity and wide angle view)
GT1585V-STBA	AC type
GT1585-STBD	DC type

Resolution: SVGA 800x600
Display color: 65536 colors
Video/RGB compatible



12.1 type	TFT (High intensity and wide angle view)
GT1585-STBA	AC type
GT1585-STBD	DC type

Resolution: SVGA 800x600
Display color: 65536 colors



10.4 type	TFT (High intensity and wide angle view)
GT1575V-STBA	AC type
GT1575-STBD	DC type

Resolution: SVGA 800x600
Display color: 65536 colors
Video/RGB compatible



10.4 type	TFT (High intensity and wide angle view)
GT1575-STBA	AC type
GT1575-STBD	DC type

Resolution: SVGA 800x600
Display color: 65536 colors



10.4 type	TFT (High intensity and wide angle view)
GT1575-VTBA	AC type
GT1575-VTBD	DC type

Resolution: VGA 640x480
Display color: 65536 colors



10.4 type	TFT
GT1575-VNBA	AC type
GT1575-VNBD	DC type

Resolution: VGA 640x480
Display color: 256 colors



10.4 type	TFT
GT1572-VNBA	AC type
GT1572-VNBD	DC type

Resolution: VGA 640x480
Display color: 16 colors



8.4
type

TFT (High intensity and wide angle view)

GT1565-VTBA AC type

GT1565-VTBD DC type

Resolution: VGA 640×480
Display color: 65536 colors8.4
type

TFT

GT1562-VNBA AC type

GT1562-VNBD DC type

Resolution: VGA 640×480
Display color: 16 colors5.7
type

TFT (High intensity and wide angle view)

GT1555-VTBD DC type

Resolution: VGA 640×480
Display color: 65536 colors5.7
type

TFT

(High intensity and wide angle view)

GT1555-QTBD DC type

Resolution: QVGA 320×240
Display color: 65536 colors5.7
type

STN

GT1555-QSBD DC type

Resolution: QVGA 320×240
Display color: 4096 colors5.7
type

STN

GT1550-QLBD DC type

Resolution: QVGA 320×240
Display color: Monochrome in 16-level

● GT11

Enhanced with basic functions for stand alone application

5.7 type	
TFT	GT1155-QTBD DC type
GT1155-QTBDD DC type	Q bus connection ¹
GT1155-QTBDA DC type	A bus connection ²

Resolution: QVGA 320×240

Display color: 256 colors

5.7 type	
STN	GT1155-QSBD DC type
GT1155-QSBDD DC type	Q bus connection ¹
GT1155-QSBDA DC type	A bus connection ²

Resolution: QVGA 320×240

Display color: 256 colors

5.7 type	
STN	GT1150-QLBD DC type
GT1150-QLBDD DC type	Q bus connection ¹
GT1150-QLBDA DC type	A bus connection ²

Resolution: QVGA 320×240

Display color: Monochrome in 16-level



5.7 type	
Handy GOT/STN	GT1155HS-QSBD DC type

Resolution: QVGA 320×240

Display color: 256 colors

5.7 type	
Handy GOT/STN	GT1150HS-QLBD DC type

Resolution: QVGA 320×240

Display color: Monochrome in 16-level



*1: For QCPU (Q mode)/Motion controller CPU (Q series) connection

*2: For QnA/ACPU/Motion controller CPU (A series) connection

● GT10

Including all the basic functions required for a HMI display

5.7 type STN
GT1055-QSBD 24VDC type

Resolution: QVGA 320×240
Display color: 256 colors



5.7 type STN
GT1050-QBBD 24VDC type

Resolution: QVGA 320×240
Display color: Monochrome (white/blue) in 16-level



4.7 type STN
GT1045-QSBD 24VDC type

Resolution: QVGA 320×240
Display color: 256 colors



4.7 type STN
GT1040-QBBD 24VDC type

Resolution: QVGA 320×240
Display color: Monochrome (white/blue) in 16-level



4.5 type

STN

GT1030-LBD	[Black]	24VDC type	RS-422 connection
GT1030-LBD2	[Black]	24VDC type	RS-232 connection
GT1030-LBL	[Black]	5VDC type	RS-422 connection
GT1030-LWD	[White]	24VDC type	RS-422 connection
GT1030-LWD2	[White]	24VDC type	RS-232 connection
GT1030-LWL	[White]	5VDC type	RS-422 connection

Resolution: 288x96

Display color: Monochrome (white/black)

Backlight: 3-color LED (green/orange/red)



4.5 type

STN

GT1030-LBDW	[Black]	24VDC type	RS-422 connection
GT1030-LBDW2	[Black]	24VDC type	RS-232 connection
GT1030-LBLW	[Black]	5VDC type	RS-422 connection
GT1030-LWDW	[White]	24VDC type	RS-422 connection
GT1030-LWDW2	[White]	24VDC type	RS-232 connection
GT1030-LWLW	[White]	5VDC type	RS-422 connection

Resolution: 288x96

Display color: Monochrome (white/black)

Backlight: 3-color LED (white/pink/red)



3.7 type

STN

GT1020-LBD	[Black]	24VDC type	RS-422 connection
GT1020-LBD2	[Black]	24VDC type	RS-232 connection
GT1020-LBL	[Black]	5VDC type	RS-422 connection
GT1020-LWD	[White]	24VDC type	RS-422 connection
GT1020-LWD2	[White]	24VDC type	RS-232 connection
GT1020-LWL	[White]	5VDC type	RS-422 connection

Resolution: 160x64

Display color: Monochrome (white/black)

Backlight: 3-color LED (green/orange/red)



3.7 type

STN

GT1020-LBDW	[Black]	24VDC type	RS-422 connection
GT1020-LBDW2	[Black]	24VDC type	RS-232 connection
GT1020-LBLW	[Black]	5VDC type	RS-422 connection
GT1020-LWDW	[White]	24VDC type	RS-422 connection
GT1020-LWDW2	[White]	24VDC type	RS-232 connection
GT1020-LWLW	[White]	5VDC type	RS-422 connection

Resolution: 160x64

Display color: Monochrome (white/black)

Backlight: 3-color LED (white/pink/red)



MEMO

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FUNCTION
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COMPLIANCE
WITH OVERSE

6 EQUIPMENT,
SOFTWARE,

GLOSSARY

Use a personal computer or panel computer as a GOT. Software recreates various GOT functionality.



HMI software for the GOT1000 series

GT SoftGOT1000 Version3

GT SoftGOT1000

GT SoftGOT1000 is the HMI software that provides GOT functions on personal computers and panel computers.

This software connects with various types of equipment such as Mitsubishi PLCs and let you see screens just like the GOT1000 series.

You can also reuse GOT's project data without modification.

Along with all the advantages of a GOT, you can also enjoy the convenience and flexibility of personal computers and panel computers.

A license key is required on your PC's parallel port or USB port while using this software.



USB port license key

* GT SoftGOT1000 Version3 software included with the GT Works3 software suite.

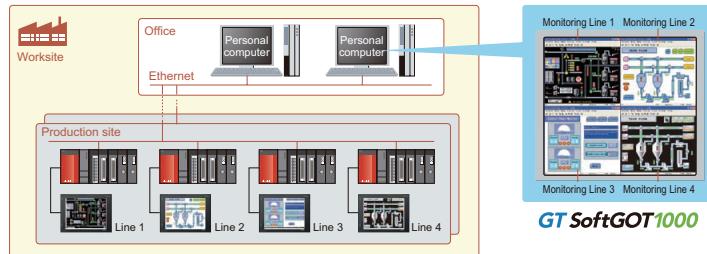
Monitor the production site from a remote location

Reduce downtime

Use GT SoftGOT1000 to monitor the production site from your office. You can collect information quickly when a problem occurs, taking necessary actions immediately.

Use GOT project data from the production site

You can reuse project data of the GOT at your production site as the project data of GT SoftGOT1000 to reduce the design cost.



Connect with MELSEC process control for process control applications

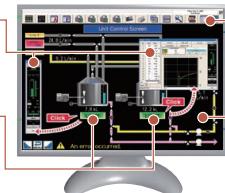
You can connect GT SoftGOT1000 to the monitor tools of the Engineering Environment PX Developer for design and maintenance work for process control. In this way, a process control monitoring system can easily be constructed.

PX Developer window screens and other tools

Tools for monitoring, operating, and tuning loop control tags. (The display position can be specified.)

GT SoftGOT1000 touch switch/object

Clicking on touch switches and objects displays various screens of PX Developer monitoring tools. (The display position can be specified.)



PX Developer monitoring tool bar

Clicking on buttons executes various operations such as starting up GT SoftGOT1000 and switching base screens.

GT SoftGOT1000 base screen

Make your desktop into a graphic monitoring window by displaying the GT SoftGOT1000 base screen in full-screen mode and sending the window to the back of the screen.

Link with other applications to construct a high-performance system

You can use a user-created application to read and write information to and from internal devices of GT SoftGOT1000. By linking data with user applications such as a data logger, you can construct a high-performance system package. You can also use a touch switch on the GT SoftGOT1000 monitor to launch another application.

<Development environment of user applications>

Microsoft® Visual C++ .NET2003, Microsoft® Visual C++ (Version.6.0),
Microsoft® Visual Basic.NET2003, Microsoft® Visual Basic (Version.6.0)

The SoftGOT-GOT link function enhances the linkage to your onsite GOT NEW

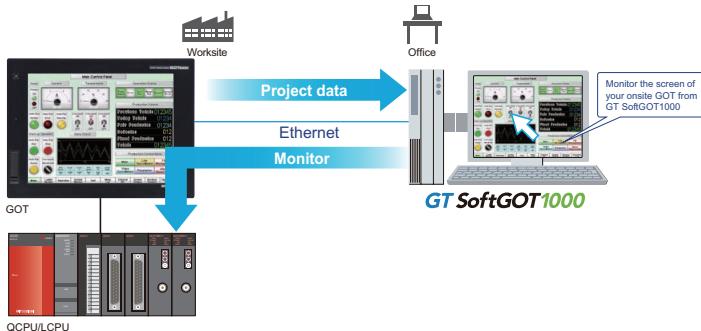
Monitor the screen of your onsite GOT from GT SoftGOT1000

Connect GT SoftGOT1000 with GOT by an Ethernet connection.

Use the GOT's project data with GT SoftGOT1000 to monitor connected equipment.*

* Only CH1 can be monitored when GOT is connected via multi-channels.

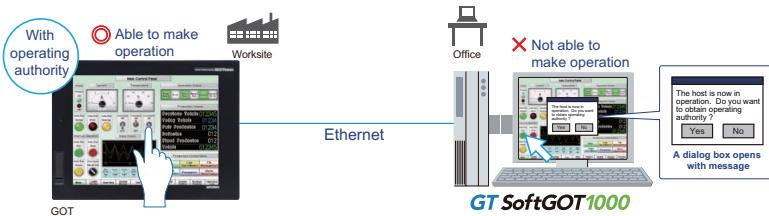
GOT and QCPU/LCPU can be connected by a bus connection, direct CPU connection, computer link connection, or Ethernet connection.



Prevent simultaneous operations from GT SoftGOT1000 and GOT

Operation of an input object (e.g. touch switch, numerical input) is allowed by either GT SoftGOT1000 or the GOT, whichever has operating authority.

When one terminal does not have operating authority, a dialog box opens to show that the other terminal has operating authority. This exclusive control method keeps prohibiting operation until the terminal obtains operating authority.



See "Specifications (Operating Environment)" (page 30), "Functions for each model" (page 34), and "Connectable models" (page 98).

1.2 Specification

GT16

General specifications

Item	Specification			
Operating ambient temperature ¹ Display	0°C to 50°C ⁵			
Operating ambient temperature ¹ Other than display	0°C to 55°C ⁵			
Storage ambient temperature	-20°C to 60°C			
Operating ambient humidity ⁷	10 to 90%RH, no condensation			
Storage ambient humidity ⁷	10 to 90%RH, no condensation			
Vibration resistance	Conforming to JIS B 3502 and IEC 61131-2	Frequency Under intermittent vibration	Acceleration 9 to 150Hz	Half amplitude 3.5mm 9.8m/s ²
		5 to 5Hz	-	10 times each in X, Y and Z directions
		5 to 5Hz	-	1.75mm
		continuous vibration	9 to 150Hz	4.9m/s ²
Impact resistance	Conforming to JIS B 3502 and IEC 61131-2 (147m/s ² , 3 times in each of X, Y and Z directions)			
Operating atmosphere	Free from oil mist, corrosive gases, flammable gases and excessive conductive dusts or direct sun beams (The same applies to unit storage.)			
Operating altitude ²	2000m or less			
Installation location	In control panel ⁶			
Oversupply category ³	II or lower			
Contamination level ⁴	2 or less			
Cooling method	Self-cooling			
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.			

*1: The maximum operating ambient temperature should be 5°C lower than that shown in the table on the condition connecting to main module (GT16-MMR), MELSECNET/H communication unit (GT15-J7LP23-25 or GT15-J7VR13), or CC-Link communication unit (GT15-B1B1T13).

*2: Do not operate or store the GOT unit in pressurized environments where the pressure exceeds the regulation atmospheric pressure, as this could result in abnormal operation. Do not pressurize inside the control panel for air purifier cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*3: Assuming that the device connects to all sorts of power between a public power source and system equipment. Category 1 applies to devices that are supplied with power from fixed equipment. The surge withstand voltage is 2500V for devices with ratings up to 300V.

*4: Index that indicates the rate of design conductive matter in the operating environment of the device. Contamination level 2 denotes contamination by non-conductive matter only, though momentary conductivity may occur due to occasional condensation.

*5: 0 to 40°C for GT1665HS

*6: Excluding GT1665HS

Do not use or store the GOT under direct sun light or in an environment with excessively high temperature, dust, humidity or vibration.

Performance specifications

Item	Specification							
	GT1695M-XTBA GT1695M-XTBD	GT1685M-STBA GT1685M-STBD	GT1675M-STBA GT1675M-STBD	GT1675M-VTBA GT1675M-VTBD	GT1675-VNBA GT1675-VNBD			
Display ¹	Type	TFT color LCD (high-brightness, wide viewing angle)			TFT color LCD			
	Screen size	15"	12.1"		10.4"			
	Resolution	XGA (1280×800 dots)	SVGA: 800×600 [dots]		VGA: 640×480 [dots]			
	Display size	304(W)×228(H) [mm]	246(W)×184.5(H) [mm]		211(W)×158(H) [mm]			
	No. of displayed characters	64 chars.×48 lines (2-byte) 12-dot standard font 85 chars.×64 lines (2-byte)	16-dot standard font: 50 chars.×37 lines (2-byte) 12-dot standard font: 66 chars.×50 lines (2-byte)		16-dot standard font: 40 chars.×30 lines (2-byte) 12-dot standard font: 53 chars.×40 lines (2-byte)			
	Display colors	65536 colors		4096 colors	16 colors			
	View angle ²	Right/left: 50°, Up: 50°, Down: 60°	Right/left: 80°, Up: 60°, Down: 80°	Up/down/right/left: 88°	Right/left: 45°, Up: 30°, Down: 20°			
	Intensity	450 [cd/m ²]	470 [cd/m ²]	400 [cd/m ²]	450 [cd/m ²] 200 [cd/m ²]			
	Intensity adjustment		8-step adjustment		4-step adjustment			
	Life	Approx. 52,000 hours (operating ambient temperature: 25°C)		Approx. 43,000 hours (operating ambient temperature: 25°C)	Approx. 52,000 hours (operating ambient temperature: 25°C)			
Backlight		Cold-cathode fluorescent tube (represented with a CRT-like PC detection function). Backlight off timer and screen save time can be set.						
	Life ³	Approx. 50,000 hours or more (Time for display intensity reaches 50% at operating ambient temperature of 25°C)						
	Type	Analog resistive type						
Touch panel ¹⁰	Key size	Min. 2x2 [dots] (per key)						
	No. of simultaneous touch points	Simultaneous touch prohibited ⁴ (1 point only)						
Human sensor	Life	1,000,000 times or more (operating force 0.98N or less)						
	Detection distance	1[m]	-					
	Detection range	Right/left/up/down: 70°	-					
	Detection delay time	0 to 4 [sec]	-					
Memory ⁵	Detection temperature	Temperature difference to be 4°C or more between human body and ambient air	-					
	C drive	15MB built-in flash memory (for saving project data and OS)	11MB built-in flash memory (for saving project data and OS)					
Memory ⁵	Life (No. of writings)	100,000 times						
		GT115-BAT type lithium battery						
Battery	Backed up data	Clock data, maintenance time notification data, system log data and SRAM user area (500KB)						
	Life	Approx. 5 years (operating ambient temperature: 25°C)						
Built-in interface	RS-232 ⁷	Transmission speed: 115200/57600/38400/19200/9600/4800bps. Connector shape: D-sub 9-pin (male). Application: Communication with connected devices, connection to personal computer (project data upload/download, OS installation, FA transparent function)	RS-232, 1ch					
	RS-422/485	Transmission speed: 115200/57600/38400/19200/9600/4800bps. Connector shape: 14-pin (female). Application: Communication with connected devices	RS-422/485, 1ch					
	Ethernet	Data transfer system: 10/100BASE-TX, 10BASE-T, 1ch ⁸ Application: Communication with connected devices, gateway function, connection to personal computer (project data upload/download, OS installation, MESH interface function)	Connector shape: RJ-45 (modular jack)					
	USB	USB (full-speed 12Mbps), device 1ch Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)	USB (full-speed 12Mbps), host 1ch Connector shape: TYPE-A Mini-B					
	CF card	Compact flash slot, 1ch Application: Data transfer, data storage, GOT startup	RS-232C, 1ch					
	Optional function board	1ch for optional function board installation	-					
	Extension unit ⁷	2ch for communication unit(optional unit installation)	-					
	Buzzer output	Single tone (tone length adjustable)	-					
	Protective construction	JEM1103 Front: IP67 ⁹ / In panel: IP2X	-					
	(without USB port cover)	397(W)×296(H)×61(D)[mm]	316(W)×242(H)×52(D)[mm]	303(W)×214(H)×49(D)[mm]				
Applicable software packages	Panel cut dimensions	383.5(W)×282.5(H)[mm]	302(W)×228(H)[mm]	289(W)×200(H)[mm]				
	Weight (excl. mounting brackets)	5.0[kg]	2.7[kg]	2.1[kg]				
GT Works3 Version 1.11								

Power supply specifications

Item	Specification									
	GT1695M-XTBA	GT1685M-STBA	GT1675M-STBA GT1675M-VTBA GT1675-VNBD	GT1672-VNBD	GT1665M-VTBA GT1665M-VNBD	GT1662-VNBD	GT1675M-STBD GT1675M-VTBD GT1675-VNBD	GT1672-VNBD	GT1665M-VTBD GT1662-VNBD	GT1665HS-VTBD
Input power supply voltage	100 to 240VAC (+10%, -15%)		50/60Hz ±5%		24VDC (+25%, -20%)		24VDC (+10%, -15%)		24VDC (+10%, -15%)	
Input frequency	50/60Hz ±5%		-		-		-		-	
Input maximum apparent power	150VA (at max. load)		110VA (at max. load)		100VA (at max. load)		-		-	
Power consumption	64W or less		46W or less		39W or less		60W or less		40W or less	
With backlight off	38W or less		32W or less		30W or less		30W or less		26W or less	
	-		-		-		27W or less		8.2W or less	
Unrush current	28A or less		28A or less		12A or less		12A or less		30A or less	
Permissible instantaneous failure time	(4ms, at max. load)		(75ms, at max. load)		(55ms, at max. load)		Within 10ms		(2ms, at max. load)	
	-		-		-		-		-	
Noise resistance	Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz		Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz		Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz		Noise voltage 1000Vp-p, noise width 1μs by noise simulator with noise frequency 30 to 100Hz		-	
Withstand voltage	1500VAC for 1 minute between power supply terminal and ground		500VDC for 1 minute between power supply terminal and ground		-		-		-	
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)		-		-		-		-	
Applicable wire size	0.75 to 2 [mm²]		-		-		-		-	
Clamp terminal	Clamp terminals for M3 screw RAV1.25-3, V2-S3.3, V2-N3A, FV2-N3A ¹		-		-		-		-	
Tightening torque [terminal block's terminal screws]	0.5 to 0.8 [Nm] ¹		-		-		-		-	

¹: Excluding GT1665HS

Performance specifications

Item	Specification			
	GT1665M-STBA GT1665M-STBD	GT1665M-VTBA GT1665M-VTBD	GT1662-VNBA GT1662-VNBD	GT1665HS-VTBD
Type	TFT color LCD (high-brightness, wide viewing angle)	TFT color LCD (high-brightness, wide viewing angle)	TFT color LCD (high-brightness, wide viewing angle)	TFT color LCD (high-brightness, wide viewing angle)
Screen size	8.4"	6.5"	6.5"	6.5"
Resolution	SVGA: 800×600 [dots]	VGA: 640×480 [dots]	171(W)×128(H)[mm]	132.5(W)×99.4(H)[mm]
Display size	16-dot standard font: 50 chars×37 lines (2-byte) 12-dot standard font: 66 chars×30 lines (2-byte)	16-dot standard font: 40 chars×30 lines (2-byte) 12-dot standard font: 53 chars×40 lines (2-byte)	16-dot standard font: 40 chars×30 lines (2-byte)	16-dot standard font: 40 chars×30 lines (2-byte)
Display colors	65536 colors	16 colors	65536 colors	65536 colors
View angle ²	Right/left: 80°, Up: 80°, Down: 60°	Right/left: 45°, Up/down: 20°	Right/left: 80°, Up: 60°, Down: 80°	Right/left: 45°, Up/down: 20°
Intensity	400 [cd/m ²]	600 [cd/m ²]	200 [cd/m ²]	550 [cd/m ²]
Intensity adjustment	8-step adjustment	4-step adjustment	8-step adjustment	8-step adjustment
Life	Approx. 43,000 hours (operating ambient temperature: 25°C)	Approx. 52,000 hours (operating ambient temperature: 25°C)	Approx. 41,000 hours (operating ambient temperature: 25°C)	LED back light of lime and seafoam green can be set.
Backlight	Cold-cathode fluorescent tube (replaceable), with backlight OFF detection function. Backlight off time and screen save time can be set.	-	-	-
Life ³	Approx. 50,000 hours or more	Approx. 40,000 hours or more	-	-
	(Time for display intensity reaches 50% at operating ambient temperature of 25°C)	-	-	-
Touch panel ⁴	Type	Analog resistive type	-	-
Key size ¹⁰	Mn. 2x2 [dots]/per key	Mn. 2x2 [dots]/per key	-	-
	No. of simultaneous touch points	Simultaneous touch prohibited ⁴ (1 point only)	-	-
Human sensor	Life	1,000,000 times or more (operating force 0.98N or less)	-	-
	Detection distance	-	-	-
	Detection delay time	-	-	-
Memory ⁵	15MB built-in flash memory (for saving project data and OS)	11MB built-in flash memory (for saving project data and OS)	16MB built-in flash memory (for saving project data and OS)	-
	Life (No. of writings)	100,000 times	-	-
Battery	G115-BAT type lithium battery	-	-	-
Backed up data	Clock data, maintenance time notification data, system log data and SRAM user area (500KB)	-	-	-
Life	Approx. 5 years (operating ambient temperature: 25°C)	-	-	-
	RS-232 ⁷	RS-232, 1ch Connector shape: D-sub 9-pin (male)	RS-232, RS-422/485, 1ch Connector shape: RJ-45 (modular jack)	RS-232, RS-422/485, 1ch, each (When using serial one of the connectors)
RS-422/485	Application: Communication connected to personal computer (project data upload/download, OS installation, FA transparent function)	Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: 14-pin (female)	Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Square, 42-pin (male)	Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Square, 42-pin (male)
	Ethernet	Data transfer system: 100BASE-TX, 10BASE-T, 1ch Connector shape: RJ-45 (modular jack)	Application: Communication with connected devices, gateway function, connection to personal computer (project data upload/download, OS installation, MES interface function)	Application: Communication with connected devices
USB	USB (full-speed 12Mbps), host 1ch Connector shape: TYPE-A	Application: Data transfer, data storage, GOT startup	Data transfer system: 100BASE-TX, 10BASE-T, 1ch Connector shape: Square, 42-pin (male)	Application: Communication with connected devices, gateway function, connection to personal computer (project data upload/download, OS installation, FA transparent function)
	Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)	-	-	-
CF card	Compact flash slot, 1ch, Connector shape: TYPE-I	Application: Data transfer, data storage, GOT startup	-	-
Optional function board	1ch for optional function board installation	-	-	-
Extension unit ⁷	2ch for communication unit/optional unit installation	-	-	-
Buzzer output	Single tone (tone length adjustable)	-	-	-
Protective construction	JEM1030 Front: IP67 ⁸ / In panel: IP2X	-	JEM1030 IP69 ⁹ (when external connecting cable is fitted)	-
External dimensions (without USB port cover)	241(W)×190(H)×52(D)[mm]	-	201(W)×230(H)×97(D)[mm]	-
Panel cut dimensions	227(W)×176(H)[mm]	-	-	-
Weight (excl. mounting brackets)	1.7[kg]	-	1.8[kg]	1.2[kg] (main unit only)
Applicable software packages	Screen design software Simulation software	GT Works3 Version 1 ¹¹	-	-

- *1: On LCD screens, bright dots (permanently lit) and black dots (not to be lit) generally appear. Because the large number of display elements exist on an LCD screen, it is not possible to reduce appearance of the bright and black dots to zero.
- Note that the existence of bright and black dots is a standard characteristic of LCD screens, and it does not mean that the products are defective or damaged.
- *2: LC panels have characteristics of line reversal. Note that even within the indicated view angles, the screen display may not be clear enough depending on the display color.
- *3: The GOT screen has a built-backlight OFF function that prevents screen burn-in and extends the backlight life.
- An analog resistive touch display is used. When 2 points on the screen are touched simultaneously, the touch position is located in the middle of the 2 points that the switch will be activated. Therefore, avoid touching 2 points on the screen simultaneously.
- The memory is a ROM that permits overwriting of data without having to delete the existing data.
- With the USB environmentally protective cover is on, pressing firmly the portion marked "△" makes a contact to IP67 (JEM1030). (The USB interface is protected by IP2X (JEM1030) if a USB cable or a USB port is connected.) However, this does not guarantee protection in all users' environments. The unit may not work in an environment where water or oil splashing oil or chemicals for a long time or is soaked with oil or mist.
- Where more than one extension unit, barcode reader, and RFID controller are used, the sum of their current consumption should be within the current limit for which the GOT can supply.
- For the currents which the extension units, barcode reader, and RFID controller consume and the current level which the GOT can supply, see "3.2 Precautions for Use (Calculation of current limit)" on page 103 (page 55).
- The function version of GT1695/GT1685 is not compatible with 10BASE-T.
- This does not guarantee protection in all users' environments. The specification is not applied when the GOT is covered by the environmental protective cover and rear face protective cover are removed.
- If necessary, use a stylus pen meeting the following specifications. (excluding GT1665HS)
 - Material: Polyacrylic resin
 - Pen point: 0.5 mm or more
- Use the software package of the latest version. The latest version package can be confirmed in the MELFANS website (<http://www.MitsubishiElectric.co.jp/melfansweb>).

GT15

General specifications

Item	Specification				
Operating ambient temperature ¹	0°C to 50°C Other than display 0°C to 55°C				
Storage ambient temperature	-20°C to 60°C				
Operating ambient humidity ²	10 to 90%RH, no condensation				
Storage ambient humidity ²	10 to 90%RH, no condensation				
Vibration resistance ³	Conforming to JIS B 3502 and IEC 61131-2	Frequency	Acceleration	Half amplitude	Sweep count
		5 to 9Hz	-	3.5mm	10 times each in X, Y all 4 directions
		9 to 150Hz	9.8ms ²	-	-
	Under continuous vibration	5 to 9Hz	-	1.75mm	-
	9 to 150Hz	4.9ms ²	-	-	-
Impact resistance	Conforming to JIS B 3502 and IEC 61131-2 (47mm ² , 3 times in each of X, Y, and 2 directions)				
Operating atmosphere	Free from oil mist, corrosive gases, flammable gases and excessive conductive dusts or direct sun beams (The same applies to unit storage.)				
Operating altitude ⁴	2000m or less				
Installation location	In control panel				
Overtolerance category ⁵	II or lower				
Contamination level ⁶	2 or less				
Cooling method	Self-cooling				
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.				

*1: The maximum operating ambient temperature should be 5°C lower than that shown in the table on the left when connecting to a MELSECNET/H communication unit (GT15-J71LP23-25 or GT15-J71BR13), or CC-Link communication unit (GT15-J61BT13).

*2: Water bulb temperature for STN display type must be 39°C or lower.

*3: Refer to the Communication Unit User's Manual for vibration resistance specification when using a MELSECNET/H communication unit (GT15-J71LP23-25 or GT15-J71BR13-Z) or CC-Link communication unit (GT15-J75J1BT13-Z). The specifications of communication units are different from those of the GOT main unit.

*4: Do not operate or store the GOT unit in pressurized environments where the pressure exceeds 0m elevation atmospheric pressure, as this could result in abnormal operation.

Do not pressurize inside the control panel for air purge cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*5: The distance between the GOT and the power source point between a public power distribution network and local system equipment. Category II applies to devices that are supplied with power from fixed equipment.

The surge withstand voltage is 2500V for devices with ratings up to 300V.

*6: Index that indicates the level of foreign conductive matter in the operating environment of the device. Contamination level 2 denotes contamination by conductive particles only, though momentary conductivity may occur due to occasional condensation.

Do not use or store the GOT under direct sun light or in an environment with excessively high temperature, dust, humidity or vibration.

Performance specifications

Item	Specification									
	GT1595-XTBA GT1595-XTBD	GT1595V-STBA GT1595V-STBD	GT1575V-STBA GT1575V-STBD	GT1575-VTBA GT1575-VTBD	GT1575-VNBA GT1575-VNBD	GT1572-VNBA GT1572-VNBD	GT1565-VTBA GT1565-VTBD	GT1562-VNBA GT1562-VNBD		
Type	TFT color LCD (high-brightness, wide viewing angle)				TFT color LCD		TFT color LCD (high-brightness, wide viewing angle)			
Screen size	15"				10.4"		8.4"			
Resolution	XGA: 1024x768 [dots]				SVGA: 800x600 [dots]		VGA: 640x480 [dots]			
Display size	304(W)x228(H) [mm]				246(W)x184(H) [mm]		211(W)x158(H) [mm]			
No. of displayed characters	16-dot standard font: 64 chars x 48 lines (2-line) 12-dot standard font: 16 chars x 34 lines (2-line)				50 chars x 37 lines (2-line)		16-dot standard font: 40 chars x 30 lines (2-line) 12-dot standard font: 53 chars x 40 lines (2-line)			
Display colors	65536 colors				256 colors		16 colors			
Display ⁷	Right/left: 75°, Up: 50°, Down: 60° GT1585 Right/left: 60°, Up: 40°, Down: 50° GT1585 Right/left: 65°, Up: 45°, Down: 55°				Right/left/up/down: 85°		Right/left: 45°, Up: 30°, Down: 20° Right/left: 65°, Up: 50°, Down: 40°			
Contrast adjustment	-				-		-			
Intensity	450 [cd/m ²] GT1595: 400 [cd/m ²]				1989V: 350 [cd/m ²] GT1595: 400 [cd/m ²]		400 [cd/m ²] 380 [cd/m ²]			
Intensity adjustment	8-step adjustment				4-step adjustment		8-step adjustment			
Life	Aprox. 52,000 hours (operating ambient temperature: 25°C)				Aprox. 50,000 hours (operating ambient temperature: 25°C)		Aprox. 41,000 hours (operating ambient temperature: 25°C)			
Backlight	Cold-cathode fluorescent tube (replaceable), with backlight OFF detection function. Backlight off time and screen save time can be set. Life ⁸				Approx. 50,000 hours or more (Time for display intensity reaches 50% at operating ambient temperature of 25°C)		Approx. 40,000 hours or more			
Touch panel ⁹	Analog resistive type				Matrix resistive type			-		
No. of touch keys	1900 keys/screen (38 lines x 50 columns)				1200 keys/screen (39 lines x 40 columns)			-		
Key size	Min. 2x2 [dots] (per key)				Min. 16x16 [dots] (per key)			Min. 16x16 [dots] (per key)		
No. of simultaneous touch points	Simultaneous touch prohibited ¹⁰ (1 point only)				Max. 2 points			-		
Life	1,000,000 times or more (operating force 0.98N or less)				-			-		
Detection distance	1 [m]				-			-		
Detection range	Right/left/up/down: 70°				-			-		
Detection delay time	0 to 4 [sec]				-			-		
Detection temperature	Temperature difference to be 4°C or more between human body and ambient air				-			-		
Memory ¹¹	C drive 9MB built-in flash memory (for saving project data and OS)				5MB built-in flash memory (for saving project data and OS)		9MB built-in flash memory (for saving project data and OS)		SMB built-in flash memory (for saving project data and OS)	
Life (No. of writings)	100,000 times				-			-		
Battery	Backed up data Clock data and maintenance time notification data				-			-		
Life	Approx. 5 years (operating ambient temperature: 25°C)				-			-		
RS-232 ¹²	Application: Communication with connected devices, connection to personal computer (project data upload/download, OS installation, FA transparent function)				RS-232, 1ch, Transfer speed: 115200/9600/38400/19200/9600/4800bps, Connector shape: DB-9-pin male			USB (full-speed 12Mbps), device 1ch		
USB	Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)				Connector shape: TYPE Mini-B			Compact flash slot, 1ch, Connector shape: TYPE 1, Application: Data transfer, data storage, GOT startup		
CF card	-				-			1ch for optional function board installation		
Optional function board	-				-			2ch for communication unit(optional unit installation)		
Extension units	-				-			Single tone (tone length adjustable)		
Buzzer output	-				-			JEN1030 Front: IP67 ¹³ In panel: IP2X		
Protective construction	External dimensions External USB port cover				397(W)x196(H)x51(D) [mm] 316(W)x242(H)x52(D) [mm]			303(W)x214(H)x49(D) [mm]		
Panel cut dimensions	383.5(W)x320.5(H) [mm] 302(W)x228(H) [mm]				289(W)x200(H) [mm]			241(W)x190(H)x52(D) [mm]		
Weight (excl. mounting brackets)	5.0 [kg]				2.8 [kg] GT1575V: 2.3 [kg] GT1575: 2.4 [kg]			2.4 [kg]		
Applicable software packages	Screen design software Simulation software				2.3 [kg]			1.9 [kg]		
					GT Works3 Version 1 ¹⁴					

Power supply specifications

Item	Specification							
	GT1595-XTBA	GT1585V-STBA	GT1575-VTBA	GT1565-VTBA	GT1575-VNB3	GT1565-VNB3	GT1555-QSBD	GT1550-QLBD
Input power supply voltage	100 to 240VAC (+10%, -15%)				24VDC (+25%, -20%)			
Input frequency	50/60Hz ± 5%				-			
Input maximum apparent power	110VA (at max. load)				-			
Power consumption	56W or less	41W or less	39W or less	57W or less (230mA@24VDC)	45W or less (110mA@24VDC)	41W or less (110mA@24VDC)	16W or less (75mA@24VDC)	15W or less (62mA@24VDC)
With backlight off	30W or less	28W or less	28W or less	32W or less (133mA@24VDC)	30W or less (125mA@24VDC)	14W or less (125mA@24VDC)	10W or less (54mA@24VDC)	10W or less (50mA@24VDC)
Inrush current	50A or less (4ms, at max. load)	45A or less (4ms, at max. load)	40A or less (4ms, at max. load)	100A or less (4ms, at max. load)	115A or less (1ms, at max. load)	115A or less (1ms, at max. load)	67A or less (1ms, at max. load)	60A or less (1ms, at max. load)
Permissible instantaneous failure time	Within 20ms (100VAC or more)				Within 10ms			
Noise resistance	Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz				Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz			
Withstand voltage	1500VAC for 1 minute between power supply terminal and ground				500VDC for 1 minute between power supply terminal and ground			
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)				-			
Applicable wire size	0.75 to 2 [mm²]				-			
Clamp terminal	Clamp terminals for M3 screw RAV1-25-3, V2-S3.3, V2-N3A, FV2-N3A				0.5 to 0.8 [N·m]			
Tightening torque (terminal block's terminal screws)	-				-			

Performance specifications

Item	Specification			
	GT1555-VTBD	GT1555-QTBD	GT1555-QSBD	GT1550-QLBD
Type	TFT color LCD (high-brightness, wide viewing angle)	STN color LCD	STN monochrome (black/white) LCD	
Screen size	5.7"			
Resolution	VGA: 640×480 [dots]	QVGA: 320×240 [dots]		
Display size	115(W)×86(H) [mm]			
No. of displayed characters ^{1~2}	16-dot standard font: 40 chars×30 lines 12-dot standard font: 53 chars×40 lines (2-line)	16-dot standard font: 20 chars×15 lines (2-line) 12-dot standard font: 26 chars×20 lines (2-line)		
Display colors	65536 colors	4096 colors	Monochrome 16 gray scale	
View angle ³	Right/left: 80°, Up: 80°, Down: 70° Left/right: 70°, Up: 70°, Down: 50°	Right/left: 55°, Up: 65°, Down: 70° Right/left: 45°, Up: 20°, Down: 40°		
Contrast adjustment	16-step adjustment			
Intensity	350 [cd/m²]	400 [cd/m²]	380 [cd/m²]	220 [cd/m²]
Intensity adjustment	8-step adjustment Approx. 60,000 hours (operating ambient temperature: 25°C)			
Life	-			
Backlight	Cold-cathode fluorescent tube (not replaceable), with backlight OFF detection function. Backlight off time and screen save time can be set.			
Life ⁴	Approx. 75,000 hours or more (Time for display intensity reaches 50% at operating ambient temperature of 25°C)			
Type	Matrix resistive type			
No. of touch keys	1200 keys/screen (30 lines×40 columns)	300 keys/screen (15 lines×20 columns)		
Key size	Min. 16x16 [dots] (per key)			
No. of simultaneous touch points	Max. 2 points			
Human sensor	1,000,000 times or more (operating force 0.98N or less)			
Detection distance	-			
Detection range	-			
Detection delay time	-			
Detection temperature	-			
Memory ⁵	9MB built-in flash memory (for saving project data and OS)			
Life (No. of writings)	100,000 times			
Battery	GT15-BAT type lithium battery (optional)			
Backed up data	Clock data and maintenance time notification data			
Life	Approx. 5 years (operating ambient temperature: 25°C)			
RS-232 ⁶	RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps Application: Communication with computer, services, connection to personal computer (project data upload/download, OS installation, FA transparent function)			
USB	USB (full-speed 12Mbps), device 1ch, Connector shape: TYPE-B Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)			
CF card	Compact flash slot, 1ch, Connector shape: TYPE-I Application: Data transfer, data storage, GOT startup			
Optional function board	1ch for optional function board installation			
Extension unit ⁷	1ch for communication/unipartition unit installation			
Buzzer output	Single tone (tone length adjustable)			
Protective construction	JEM1030 Front: IP67/T7 in panel; IP2X			
External dimensions ⁸ (without USB port cover)	167(W)×135(H)×60(D) [mm]			
Panel cut dimensions	153(W)×121(H) [mm]			
Weight (excl. mounting brackets)	1.1 [kg]			
Applicable software packages	Screen design software Simulation software	GT Works3 Version ¹⁰		

1: On LCD screens, bright dots (permanent dot) and black dots (not to be permanent dot). Because the length of the display elements exist on an LCD screen, it is not possible to reduce appearance of the bright and black dots to zero.

Flickering may occur depending on the display colors. Note that the number of bright and black dots is a standard characteristic of LCD screens, and it does not mean that the products are defective or damaged.

2: Flickering may occur depending on the display colors.

3: LC panels have characteristics of tone reversal. Note that even when the tone reversal is set to off, the screen display may not be clear enough depending on the display characteristics.

4: Using the GOT screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.

5: An analog resistor touch display is used. When 2 points on the touch panel touch simultaneously, a switch is located in the middle of the 2 points then the switch will be activated. Therefore, avoid touching 2 points on the screen simultaneously.

6: The memory is a ROM that permits overwriting of new data without having to delete the existing data.

7: When the USB environment connection is on, the main unit conforms to JEM1030. (The USB interface conforms to IP2X (JEM1030) when a USB cable is connected.) However, this does not guarantee protection in all users' environments.

The unit may not be used in an environment where it is exposed to splash oil or chemicals for a long time or it is soaked with full of oil mist.

8: Where more than one extension unit, barcode reader, and RFID controller are used, the sum of their current consumptions should be within the level of the power source.

For the currents which the extension units, barcode reader, and RFID controller consume and the current level which the GOT can supply, see "3.2 Precautions for Use (Calculation of current consumed by units <GT1615>".

9: If necessary, use a stylus pen meeting the following specifications.

- Material: Polyimide resin

- Point tip radius: 0.8mm or more

10: Use the software package version 1.0 or later.

The latest version package can be confirmed in the MELFANWeb website (<http://www.MitsubishiElectric.co.jp/melfanweb>).

GT11

General specifications

Item	Specification				
Operating ambient temperature Display	0°C to 50°C ⁵				
Operating ambient temperature Other than display	0°C to 55°C (horizontal installation), 0°C to 50°C (vertical installation) ⁶				
Storage ambient temperature	-20°C to 60°C				
Operating ambient humidity ⁷	10 to 90%RH, no condensation				
Storage ambient humidity ⁷	10 to 90%RH, no condensation				
Vibration resistance	Conforming to JIS B 3502 and IEC 61131-2	Under intermittent vibration	5 to 9Hz	Acceleration	Half amplitude
		9 to 150Hz	-	3.5mm	10 times each in X, Y and Z directions
		Under continuous vibration	5 to 9Hz	-	1.75mm
		9 to 150Hz	4.9mm ²	-	-
Impact resistance	Conforming to JIS B 3502 and IEC 61131-2 (147N ² , 3 times in each of X, Y and Z directions)				
Operating atmosphere	Free from oil mist, corrosive gases, flammable gases and excessive conductive dusts or direct sun beams (The same applies to unit storage.)				
Operating altitude ²	2000m or less				
Installation location	In control panel ⁸				
Overvoltage category ³	II or lower				
Contamination level ⁴	2 or less				
Cooling method	Self-cooling				
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.				

*1: Water bulb temperature for STN display type must be 39°C or lower.

*2: Do not operate or store the GOT unit in pressurized environments where the pressure exceeds 0m elevation atmospheric pressure, as this could result in abnormal operation.

Do not pressurize inside the control panel for air purge cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*3: Assuming that the device is connected at some point between a public power distribution network and local system equipment. Category II is applied to equipment that is supplied with power from fixed external sources. The surge withstand voltage is 2500V for devices with ratings up to 300V.

*4: Indicate that the level of foreign conductive matter in the operating environment of the device. Contamination level 2 denotes contamination by non-conductive matter only; though minor conductivity may occur due to occasional condensation.

*5: 0 to 40°C for GT115-¹HS

*6: Excluding GT115-¹HS

Performance specifications

Item	Specification				
	GT115-QTBD	GT115-QSBD	GT115-QLBD	GT115HS-QSBD	GT115HS-QLBD
Type	TFT color LCD	STN color LCD	STN monochrome (black/white) LCD	STN color LCD	STN monochrome (black/white) LCD
Screen size			5.7"		
Resolution		C VGA: 320×240 [dots]			
Display size	115(W)×86(H) [mm] (in horizontal display mode)			115(W)×86(H) [mm]	
No. of displayed characters	16-dot standard font: 20 chars.×15 lines (2-byte) 12-dot standard font: 26 chars.×20 lines (2-byte) (in horizontal display mode)				
Display colors	256 colors		Monochrome (black/white) 16 gray scale	256 colors	Monochrome (black/white) 16 gray scale
Display ¹					
View angle	Right/left: 50°, Up: 50°, Down: 60° (Hardware versions A and B) Up: 70°, Down: 50° (in horizontal display mode)	Right/left: 50°, Up: 50°, Down: 60° (Hardware versions A and B) • Right/left: 55°, Up: 65°, Down: 70° (Hardware version C or later) (in horizontal display mode)	Right/left: 45°, Up: 20°, Down: 40° (in horizontal display mode)	Right/left: 45°, Up: 50°, Down: 60° (Hardware versions A and B) • Right/left: 55°, Up: 65°, Down: 70° (Hardware version C or later)	Right/left: 45°, Up: 20°, Down: 40°
Contrast adjustment	-			16-step adjustment	
Intensity	400 [cd/m ²] (Hardware versions A and B) +380 [cd/m ²] (Hardware version C or later)	+350 [cd/m ²] (Hardware versions A and B) +380 [cd/m ²] (Hardware version C or later)	220 [cd/m ²] (Hardware versions A and B) +380 [cd/m ²] (Hardware version C or later)	+350 [cd/m ²] (Hardware versions A and B) +380 [cd/m ²] (Hardware version C or later)	220 [cd/m ²]
Intensity adjustment		8-step adjustment			
Life	Approx. 50,000 hours (operating ambient temperature: 25°C)				
Backlight	Approx. 75,000 hours or more	Approx. 54,000 hours or more	Approx. 75,000 hours or more	Approx. 54,000 hours or more	
	(Time for display intensity reaches 50% at operating ambient temperature of 25°C)				
Touch panel					
Type		Multi-touch type			
No. of touch keys		300 keys/screen (matrix consisting of 15 lines×20 columns)			
Key size		Min. 16×16 [dots] (per key)			
No. of simultaneous touch points		Max. 2 points			
Life		1,000,000 times or more (operating force 0.98N or less)			
Memory	C drive ³ [Life (No. of writings)]	3MB built-in flash memory (for saving project data and OS)			
D drive		100,000 times			
Battery	Backed up data	512KB built-in SRAM (battery backup)			
	Life	Clock data, alarm history and recipe data			
		Replacement guideline approx. 5 years (operating ambient temperature: 25°C)			
	Bus				
RS-422/485	RS-422, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with connected devices Terminal resistance ⁵ : OPEN/110/133Ω (switching by terminal resistance transfer switch)				
RS-422/232					
RS-232	RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with connected devices, connection to personal computer, (project data upload/download, OS installation, FA transparent function, etc.)				
USB	USB (full-speed 12Mbps), device 1ch Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)				
CF card	Compact flash slot, 1ch, Connector shape: TYPE I Application: Data transfer and data storage				
Optional function board		Embedded in main unit			
Buzzer output		Single tone (tone length adjustable)			
Protected construction ⁶ (without USB port cover)	JEM1030 Front: IP67 in panel: IP2X	JEM1030 IP65 (when external connecting cable is fitted)			
Panel cut dimensions	164(W)×135(H)×56(D) [mm]	176(W)×220(H)×93(D) [mm]			
Weight	0.7 [kg] (excl. mounting brackets)	1.0 [kg] (main unit only)			
Applicable software packages	Screen design software Simulation software	GT Works3 Version 1 ⁶			

Power supply specifications

Item	Specification				
GT1155-QTBD GT1155-QSBD GT1155HS-QSBD	GT1150-QLBD GT1150HS-QLBD	GT1155-QTBDQ GT1155-QSBDQ	GT1155-QSBDQ GT1155-QSBDQ	GT1150-QLBDO GT1150-QLBDO	GT1155-QLBDO GT1155-QLBDO
Input power supply voltage	24VDC (+10%, -15%), ripple voltage of 200mV or less				
Input frequency					
Input maximum apparent power					
Power consumption	9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)	11.16W or less (465mA/24VDC)	9.72W or less (405mA/24VDC)	7.92W or less (330mA/24VDC)
With backlight off	4.32W or less (180mA/24VDC)			5.04W or less (210mA/24VDC)	
Inrush current	15A or less (2ms, at max. load)			26A or less (4ms, at max. load)	
Permissible instantaneous failure time	Within 5ms			Within 10ms	
Noise resistance	Noise voltage 1000Vp-p, noise width 1μs by noise simulator with noise frequency 30 to 100Hz			Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz	
Withstand voltage		500VAC for 1 minute between power supply terminal and ground			
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)				
Applicable wire size		0.75 to 2 [mm ²]			
Clamp terminal	Clamp terminals for M3 screw RAV1.25-3, V2-N3A, FV2-N3A ¹				
Tightening torque (terminal block's terminal screws)	0.5 to 0.8 [N·m] ¹				

¹: Excluding GT1155HS-QSBD

Performance specifications

Item	Specification		
GT1155-QTBDQ GT1155-QSBDQ	GT1155-QLBDQ GT1155-QSBDQ	GT1155-QLBDO GT1155-QLBDO	STN monochrome (black/white) LCD
Type	TFT color LCD	STN color LCD	STN monochrome (black/white) LCD
Screen size	5.7"		
Resolution	QVGA: 320×240 [dots]		
Display size	115(W)×86(H) [mm] (in horizontal display mode)		
No. of displayed characters	16-dot standard font: 20 chars × 15 lines (2-byte) 12-dot standard font: 26 chars × 20 lines (2-byte) (in horizontal display mode)		
Display colors	256 colors	Monochrome (black/white)	16 gray scale
View angle	Right/left: 70°, Up: 70°, Down: 50° (in horizontal display mode)	Right/left: 55°, Up: 65°, Down: 70° (in horizontal display mode)	Right/left: 45°, Up: 20°, Down: 40° (in horizontal display mode)
Contrast adjustment	-	16-step adjustment	
Intensity	400 [cd/m ²]	380 [cd/m ²]	220 [cd/m ²]
Intensity adjustment		8-step adjustment	
Life	Approx. 50,000 hours (operating ambient temperature: 25°C)		
Backlight	Cold-cathode fluorescent tube (not replaceable), with backlight OFF detection function. Backlight off time and screen save time can be set.		
Life ²	Approx. 75,000 hours or more (Time for display intensity reaches 50% at operating ambient temperature of 25°C)	Approx. 54,000 hours or more	
Type	Matrix resistive type		
No. of touch keys	300 keys/screen (matrix consisting of 15 lines×20 columns)		
Key size	Mn. 16x16 [dots] (per key)		
No. of simultaneous touch points	Max. 2 points		
Life	1,000,000 times or more (operating force 0.98N or less)		
Memory	C drive ³ Life (No. of writings) D drive	3MB built-in flash memory (for saving project data and OS) 100,000 times 512KB built-in SRAM (battery backup)	
Battery		GT11-50BAT type lithium battery	
Backed up data	Clock data, alarm history and recipe data		
Life	Replacement guideline approx. 5 years (operating ambient temperature: 25°C)		
Bus	1ch for QCPU/Q mode/motion controller CPU (Q series) or 1ch for QnA/ACPU/motion controller CPU (A series) Application: For bus connection of PLC		
RS-422/485			
RS-422/232			
RS-232	RS-232, 1ch. Transmission speed: 115,200bps/19200bps/30000bps/4800bps. Data format: 8-bit data, 1 start bit, 1 stop bit, D-sub 9-pin (male) Application: Connection to barcode reader/personal computer (project data upload/download, OS installation, FA transparent function, etc.)		
USB	USB (full-speed 12Mbps), device 1ch Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)		
CF card	Compact flash slot, 1ch, Connector shape: TYPE I Application: Data transfer and data storage		
Optional function board	Embedded in main unit		
Buzzer output	Single tone (tone length adjustable)		
Protective construction ⁴	JEM1030 Front: IP67 in panel; IP2X		
External dimensions (without USB port cover)	167(W)×135(H)×65(D) [mm]		
Panel cut dimensions	153(W)×121(H) [mm]		
Weight	0.9 [kg] (excl. mounting brackets)		
Applicable software packages	Screen design software Simulation software	GT Works3 Version1 ⁶	

*1: On LCD screens, bright dots (permanently lit) and black dots (not to be lit) generally appear. Because the large number of display elements exist on an LCD screen, it is not possible to reduce appearance of the bright and black dots to zero.

*2: The existence of bright and black dots is a standard characteristic of LCD screens, and it does not mean that the products are defective or damaged.

*3: Displaying one simple screen for a long time can lead to burn-in, color afterimages or image irregularities that could not disappear. Use the screen saver that is effective to prevent burn-in.

*4: Using the GOT screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.

*5: The screen is a flat panel that permits overwriting of new data without having to delete the existing data.

*6: This does not guarantee protection in all users' environments. The specification is not applied when the interface protective cover and rear face protective cover are removed.

*7: In case of GOT multi-drop connection, set the terminal resistance transfer switch on the GOT main unit according to the connection configuration.

*8: Use the software package of the latest version.
The latest version package can be confirmed in the MELFANSweb website (<http://www.MitsubishiElectric.co.jp/melfansweb>).

● GT10

General specifications

Item	Specification			
Operating ambient temperature	0°C to 50°C 0°C to 55°C (horizontal installation) 0°C to 50°C (vertical installation)			
Storage ambient temperature	-20°C to 60°C			
Operating ambient humidity ¹	10 to 90%RH, no condensation			
Storage ambient humidity ¹	10 to 90%RH, no condensation			
Vibration resistance	Conforming to JIS B 3502 and IEC 61131-2	Frequency 5 to 9Hz	Acceleration -	Half amplitude 3.5mm
		9 to 150Hz	9.8m/s ²	- 10 times each in X, Y and Z directions
		Under continuous vibration 5 to 50Hz	-	1.75mm
		9 to 150Hz	4.9m/s ²	-
Impact resistance	Conforming to JIS B 3502 and IEC 61131-2 (147m/s ² , 3 times in each of X, Y and Z directions)			
Operating atmosphere	Free from oil mist, corrosive gases, flammable gases and excessive conductive dusts or direct sun beams (The same applies to unit storage.)			
Operating altitude ²	2000m or less			
Installation location	In control panel			
Oversatge category ³	II or lower			
Contamination level ⁴	2 or less			
Cooling method	Self-cooling			
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground. ⁵			

Performance specifications<GT105□, GT104□>

Item	Specification			
	GT1055-QSBD	GT1050-QBBD	GT1045-QSBD	GT1040-QBBD
Type	STN color LCD	STN monochrome (blue/white) LCD	STN color LCD	STN monochrome (blue/white) LCD
Screen size	5.7"	5.7"	4.7"	4.7"
Resolution	OVGGA: 320×240 [dots]	96(W)×72(H) [mm] (in horizontal display mode)	96(W)×72(H) [mm] (in horizontal display mode)	96(W)×72(H) [mm] (in horizontal display mode)
Display size				
No. of displayed characters		16-dot standard font: 20 chars×15 lines (2-byte).		
Display colors		12-dot standard font: 26 chars×10 lines (2-byte) (in horizontal display mode)		
View angle		Right/left: 55° Up: 65° Down: 70° (in horizontal display mode)	Right/left: 45° Up: 20° Down: 40° (in horizontal display mode)	Right/left: 50° Up: 40° Down: 70° (in horizontal display mode)
Contrast adjustment		16-step adjustment		
Intensity		380 [cd/m ²]	260 [cd/m ²]	150 [cd/m ²]
Life		Approx. 50,000 hours (Time for display contrast reaches 20% at operating ambient temperature of 25°C)		
Backlight		Cold-cathode fluorescent tube (not replaceable) with backlit OFF detection function. Backlight off time and screen save time can be set.	LED (not replaceable). Backlight off time and screen save time can be set.	-
Life ²		Approx. 75,000 hours or more (Time for display intensity reaches 50% at operating ambient temperature of 25°C)	Approx. 54,000 hours or more (Time for display intensity reaches 50% at operating ambient temperature of 25°C)	-
Touch panel	Type	Matrix resistive type		
	No. of touch keys	Max. 50 keys/screen		
	Key size	Min. 16x16 [dots] (per key)		
	No. of simultaneous touch points	Max. 2 points		
	Life	1,000,000 times or more (operating power 0.98N or less)		
Memory	User memory ³	Built-in flash memory for saving project data (3 MB or less) and OS		
	Life (No. of writings)	100,000 times		
Battery	Backed up data	Clock data, alarm history and recipe data		
	Life	Replacement guideline approx. 5 years (operating ambient temperature: 25°C)		
Built-in interface	RS-422/485	RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with PLCs		
		Terminal resistance ⁴ : OPEN/110Ω/33Ω (switched by terminal resistance transfer switch)		
	RS-232	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with PLCs, connection with barcode readers, communication with personal computers (project data upload/download, OS installation, transparent function)		
		USB (full-speed 2Mbps), device 1ch Connector shape: TYPE-A Mini-B (receptacle) Application: Communication with personal computer (project data upload/download, OS installation, transparent function)		
	Memory board	For installing memory board (GT 10-50FM) 1ch		
BUZZER output		Single tone (tone length adjustable/none)		
Protective construction ⁴		Conforming to IP67 (IEM1030) (front panel)		
External dimensions	164(W)×135 (H)×56 (D)[mm]		139(W)×121(H)×41(D)[mm] (Excluding mounting fixtures) (Horizontal format)	
Panel cut dimensions	153(W)×121(H)[mm]		130(+1-0)(W)×103(+1-0)(H)[mm] (Horizontal format)	
Weight	0.7kg (excl. mounting brackets)		0.45kg (excl. mounting brackets)	
Applicable software package	GT Works3 Version ⁶			

*1: On LCD screens, bright dots (permanently lit) and black dots (not to be lit) generally appear.

Because the large number of display elements exist on an LCD screen, it is not possible to reduce appearance of the bright and black dots to zero.

Flickering may occur depending on the display colors.

Note that the existence of bright and black dots is a standard characteristic of LCD screens, and it does not mean that the products are defective or damaged.

*2: Using the screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.

*3: The memory is a ROM that permits overwriting of new data without having to delete the existing data.

*4: This product is not protected in all users' environments.

This specification is not guaranteed when installing protective cover and rear face protective cover are removed.

*5: In the case of GOT multi-drop connection, set the terminal resistance transfer switch on the GOT main unit according to the connection configuration.

*6: Use the software package of the latest version.

The latest version package can be confirmed in the MELFANSweb website (<http://www.MitsubishiElectric.co.jp/melfansweb>).

*1: Water bulb temperature for STN display type must be 39°C or lower.
*2: Do not operate or store the GOT in pressurized environments where the pressure exceeds the elevation atmospheric pressure, as this could result in abnormal operation.

Do not pressure inside the control panel for air purge cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*3: Atmospheric contamination is defined as the amount of contaminant between a public power distribution network and local system equipment. Category II applies to devices that are supplied with power from fixed equipment. The surge withstand voltage is 2500V for devices with ratings up to 300V.

*4: Index that indicates the level of foreign conductive matter in the atmosphere around the device. Contamination level 2 denotes contamination by non-conductive matter only, though momentary conductivity may occur due to occasional condensation.

*5: The SVDC type requires no grounding.

Power supply specifications<GT10>

Item	Specification										
	GT1055-QSBD	GT1050-QBBD	GT1045-QSBD GT1040-QBBD	GT1030-LBD GT1030-LWD	GT1030-LBDW GT1030-LWD2	GT1020-LBD GT1020-LWD	GT1020-LBDW GT1020-LWD2	GT1030-LBL GT1020-LBL	GT1020-LBLW GT1020-LBLW2		
Input power supply voltage	24VDC (+10%, -15%), ripple voltage of 200mV or less						5VDC (±5%), supplied from PLC communication cable				
Input frequency	50Hz						-				
Input maximum apparent power	-						-				
Power consumption	9.84W or less (410mA×24VDC)	9.36W or less (390mA×24VDC)	3.6W or less (150mA×24VDC)	2.2W or less (90mA×24VDC)	1.9W or less (80mA×24VDC)	1.9W or less (80mA×24VDC)	1.1W or less (220mA×5VDC)				
With backlight off	4.32W or less (180mA×24VDC)	2.9W or less (120mA×24VDC)	1.7W or less (70mA×24VDC)	1.2W or less (50mA×24VDC)	1.2W or less (50mA×24VDC)	1.2W or less (50mA×24VDC)	0.6W or less (120mA×5VDC)				
Inrush current	15A or less (26.4V) 2ms	18A or less (26.4DCV) 1ms						13A or less (26.4DCV) 1ms	-		
instantaneous failure time	Within 5ms						-				
Noise resistance	Noise voltage 1000V-p-p, noise width 1μs by noise simulator with noise frequency 30 to 100Hz						-				
Withstand voltage	500VAC for 1 minute between power supply terminal and ground						-				
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)						-				
Applicable wire size	0.75 to 2 [mm ²]	Single-wire installation: 0.14 to 1.5mm ² , AWG26 to AWG16 (single wire), 0.14 to 1.0mm ² , AWG26 to AWG16 (stranded wire). Two-wire installation: 0.14 to 0.5mm ² , AWG24 to AWG20 (single wire), 0.14 to 0.2mm ² , AWG26 to AWG24 (stranded wire)						-			
Clamp terminal	Clamp terminals for M3 screw RAV1.25-3, V2-N3A, FV2-N3A						AI2.5-BU, AI0.34-GTO, AI0.5-6WH (made by Phoenix Contact)				
Tightening torque (terminal block's terminal screws)	0.5 to 0.8 [N·m]						0.22 to 0.25 [N·m]				

Performance specifications<GT1030, GT1020>

Item	Specification														
	GT1030-LBD GT1030-LWD	GT1030-LBDW GT1030-LWLW	GT1030-LBD2 GT1030-LWD2	GT1030-LBDW2 GT1030-LWLW	GT1020-LBD GT1020-LWD	GT1020-LBDW GT1020-LWLW	GT1020-LBL GT1020-LBLW	GT1020-LBD2 GT1020-LWD2							
Type	STN monochrome (black/white) LCD														
Screen size	4.5"														
Resolution	288×96 [dots] (in horizontal mode)														
Display size	109.42[V]×35.98[H]mm [in horizontal mode]														
No. of displayed characters	16-dot standard font: 36 chars×8 lines (1-byte) or 18 chars×6 lines (2-byte) (in horizontal mode) 12-dot standard font: 48 chars×8 lines (1-byte) or 24 chars×8 lines (2-byte) (in horizontal mode)														
Display colors	Monochrome (black/white)														
View angle	Right/left: 30°, Up: 20°, Down: 30° (in horizontal display mode)														
Contrast adjustment	16-step adjustment														
Intensity	200 [cd/m ²] (in green)	300 [cd/m ²] (in white)	200 [cd/m ²] (in green)	300 [cd/m ²] (in white)	200 [cd/m ²] (in green)	300 [cd/m ²] (in white)	200 [cd/m ²] (in green)	300 [cd/m ²] (in white)							
Intensity adjustment	8-step adjustment														
Life	Approx. 50,000 hours (Time for display contrast reaches 20% at operating ambient temperature of 25°C)														
Backlight	Color 3-color LED (green, orange and red) (replacement not needed)	3-color LED (white, pink and red) (replacement not needed)	3-color LED (green, orange and red) (replacement not needed)	3-color LED (white, pink and red) (replacement not needed)	3-color LED (green, orange and red) (replacement not needed)	3-color LED (white, pink and red) (replacement not needed)	3-color LED (green, orange and red) (replacement not needed)	3-color LED (white, pink and red) (replacement not needed)							
Function	Status control (color, on/off/light/off) is available and screen save time setting can be set. PLC can control color and status of backlight based on system information.														
Touch panel	Type Matrix resistive type	Analog resistive type													
No. of touch keys	Max. 50 keys/screen														
Key size	Min. 16×16 [dots] (per key)														
No. of simultaneous touch points	Max. 2 points														
Life	1,000,000 times or more (operating force 0.98N or less)														
Memory	User memory [*] (No. of writings)	Built-in flash memory for saving project data (1.5MB or less) and OS 100,000 times													
Battery	Backed up data GT11-50BAT type lithium battery	Clock data, alarm history and recipe data	-												
Life	Replacement guideline approx. 5 years (operating ambient temperature: 25°C)														
Built-in interface	For communication with PLC RS-232C, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)	GT1030-LBDW, GT1030-LBDWLW RS-422, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)	GT1020-LBDW, GT1020-LBDWLW RS-422, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)	GT1020-LBDWLW, GT1020-LBDWL RS-422, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)	GT1020-LBDWLW, GT1020-LBDWL RS-422, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Terminal resistance ³ : OPEN/H((33Ω)) (switched by terminal resistance transfer switch)							
For communication with personal computer	RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Mini DIN 6-pin (female) Application: Communication with personal computer (project data upload/download, OS installation, transparent function)														
Buzzer output	Single tone (tone length adjustable:none)														
Protective construction ⁴	Conforming to IP67 (JEM1030) (front panel)														
External dimensions	145[W]×70[H]×29.5[D]mm	113[W]×74[H]×27[D]mm													
Panel cut dimensions	137[W]×66[H]mm	105[W]×66[H]mm													
Weight	GT1030-L: D(W): 0.3kg (excl. mounting brackets)	0.3kg (excl. mounting brackets)	GT1020-L: D(W): 0.2kg (excl. mounting brackets)	GT1020-L: L(W): 0.18kg (excl. mounting brackets)	0.2kg (excl. mounting brackets)	-									
Applicable software package	GT Works3 Version1 ⁵														

*1: On LCD screens, bright dots (permanently lit) and black dots (to zero) may appear. Because the large number of display elements exist on an LCD screen, it is not possible to reduce appearance of the bright and black dots to zero.

Flickering may occur depending on the display colors.

Note that the existence of bright dots and black dots is a standard characteristic of LCD screens, and it does not mean that the products are defective or damaged.

Display on single line for a long time can lead to burn-in, causing afterimages or image irregularities that could not disappear.

Use the screen saver that is effective to prevent burn-in.

*2: The memory is a ROM that permits overwriting of new data without having to delete the existing data.

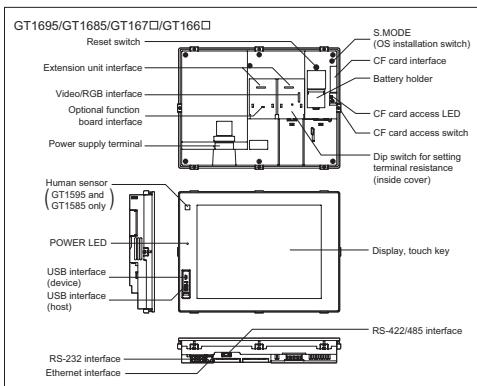
*3: In the case of GOT multi-drop connection, set the terminal resistance transfer switch on the GOT main unit according to the connection configuration.

*4: This does not guarantee protection in all usage environments.

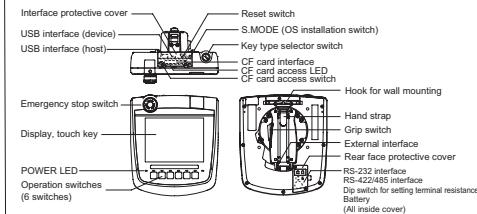
*5: Use the software package of the latest version.

The latest version package can be confirmed in the MELFANSweb website (<http://www.MitsubishiElectric.co.jp/melfansweb>).

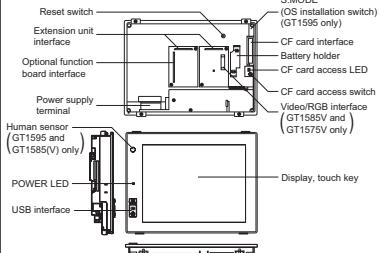
1.3 Part Name



GT16 Handy

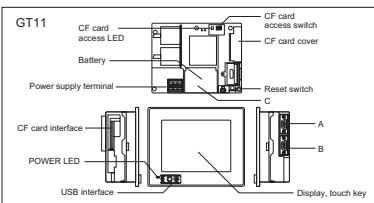
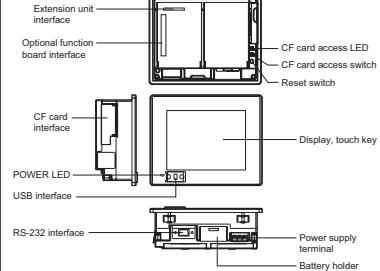


GT1595/GT1585/GT157□/GT156□



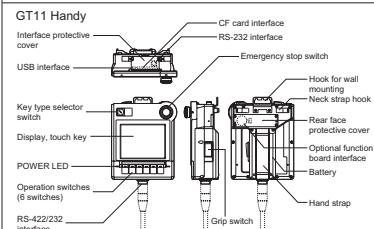
* : This illustration shows GT1585V-STBA.

GT155□

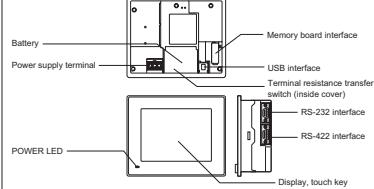


	GT115□-Q□BD	GT115□-QCJBQ GT115□-QCJBA
A	RS-232 interface	Bus interface
B	RS-422 interface	RS-232 interface
C	Terminal resistance transfer switch (inside cover)	—

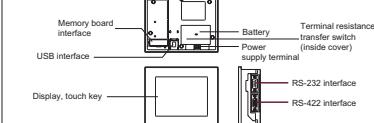
* : GT1150-QBDQ and GT1150-QB
function board interface and reset switch



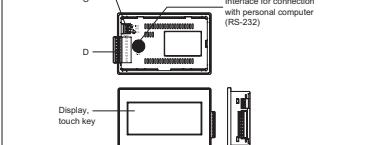
GT105□



GT104□



GT1030/GT102



GT1030-LBD	GT1030-LBL	GT1030-LBW
GT1030-LWD	GT1030-LWL	GT1030-LWDW
GT1030-BDW	GT1030-BDL	GT1030-LWDWB
GT1030-LDWWD	GT1030-LWLW	GT1030-LWDWW
GT1020-LBD	GT1020-LBL	GT1020-LBW
GT1020-LWD	GT1020-LWL	GT1020-LWDW
GT1020-BDW	GT1020-BDL	GT1020-BDWL
GT1020-LDWWD	GT1020-LWLW	GT1020-LWDWW
C	Power supply terminal	—
D	RS-422 interface	RS-422 interface, Power supply terminal
E	Terminal resistance transfer switch (inside cover)	—

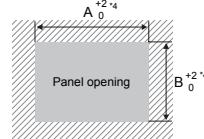
1.4 Installation

■ Panel cut dimensions

- When GOT is installed

Screen size	Type of GOT main unit	A	B	(Unit: mm)
15"	GT1695	383.5	282.5	
	GT1595			
12.1"	GT1685 ¹	302	228	
	GT1585 ¹			
10.4"	GT167 ²	289	200	
	GT157 ²			
8.4"	GT166 ³	227	176	
	GT156 ³			
5.7"	GT155 ³			
	GT115 ³	153	121	
4.7"	GT105 ³			
	GT104 ³	130	103	
4.5"	GT1030	137	66	
3.7"	GT1020	105	66	

*1: Same dimensions as A985GOT(-V)
 *2: Same dimensions as A975/970GOT(-B)
 *3: Same dimensions as F940GOT
 *4: For the GT104³, GT1030 and GT1020, the tolerance is +1/-0.



- When CF card extension unit (mounting unit on control panel) is installed

Type	A	B
GT15-CFEX-C08SET	94.0	33.0

● Cautions when installing and uninstalling

When installing the CF card extension unit on the control panel, make sure that the extension unit does not interfere with the extension unit cable or the CF card interface of the GOT. Place the CF card extension unit at a distance of 25mm or more from the GOT.

For installation locations, see the GT16 User's Manual or the GT15 User's Manual.

For compatibility with GOT900 series, see "Backward compatibility" (page 51).

■ Product installation interval

The GOT must have the clearances from other devices as shown in [Fig. A]. The GOT may require more distance than the dimensions shown in the table depending on the types of connection cables. Consider the connector dimensions and radius of cable bending curvature when designing the installation.

● GT16/GT15

	Item	GT1695	GT1685	GT167 ²	GT166 ²	GT1595	GT1585	GT157 ²	GT156 ³	GT155 ³	(Unit: mm)
GOT only											
		50 or more (20 or more)									49 or more
When bus connection unit is installed		50 or more (20 or more)	50 or more (24 or more)	50 or more (33 or more)	50 or more (43 or more)	50 or more (20 or more)	50 or more (35 or more)	50 or more (40 or more)	50 or more (21 or more)	50 or more (21 or more)	
When serial communication unit is installed						50 or more (20 or more)			50 or more (21 or more)	49 or more	
When RS-422 conversion unit is installed		50 or more (20 or more)	50 or more (39 or more)	50 or more (48 or more)	58 or more	50 or more (20 or more)	50 or more (39 or more)	53 or more	58 or more	-	
When Ethernet communication unit is installed		-	-	-	-				50 or more (20 or more)		
When CC-Link communication unit (GT15-J6BT13) is installed						50 or more (20 or more)				50 or more (24 or more)	
When CC-Link IE controller network communication unit is installed				50 or more (20 or more)		50 or more (28 or more)	50 or more (20 or more)	50 or more (23 or more)	50 or more (28 or more)	57 or more	
When MESECNET/H communication unit (coaxial) is installed				50 or more (20 or more)	50 or more (25 or more)	50 or more (35 or more)	50 or more (20 or more)	50 or more (30 or more)	50 or more (25 or more)	64 or more	
When MESECNET/H communication unit (optical) is installed		50 or more (20 or more) ¹	50 or more (23 or more) ¹	50 or more (32 or more) ¹	50 or more (42 or more) ¹	50 or more (20 or more) ¹	50 or more (23 or more) ¹	50 or more (37 or more) ¹	50 or more (42 or more) ¹	79 or more ¹	
A	When printer unit is installed					50 or more (20 or more)				50 or more (29 or more)	
	When multimedia unit is installed	50 or more (20 or more) ²	61 or more ²	70 or more ²	80 or more ²	-	-	-	-	-	
B	When video input unit is installed	50 or more (20 or more) ²	61 or more ²	70 or more ²	80 or more ²	-	61 or more	75 or more ²	-	-	
	RGB input unit		50 or more (20 or more) ³	-	50 or more (25 or more) ³	-	50 or more (20 or more) ³	-	-	-	
C	video/RGB input unit	50 or more (20 or more) ²	61 or more ²	73	80 or more ²	-	61 or more ²	75 or more ²	-	-	
	RGB output unit		50 or more (20 or more) ³	-	50 or more (25 or more) ³	-	50 or more (20 or more) ³	-	-	-	
D	When CF card unit is installed					50 or more (20 or more)					
	CF card extension unit	50 or more (20 or more)	50 or more (49 or more)	58 or more	68 or more	50 or more (20 or more)	50 or more (49 or more)	63 or more	68 or more	97 or more	
E	When audio output unit is installed					50 or more (20 or more)					
	When external input/output unit is installed		50 or more (20 or more)		50 or more (29 or more)	50 or more (20 or more)	50 or more (24 or more)	50 or more (29 or more)	50 or more (29 or more)	58 or more	
F						80 or more (20 or more)					
	(When CF card is not used)					50 or more (20 or more)					
G	(When CF card is used)					50 or more (20 or more)				100 or more (20 or more)	
	E					100 or more (20 or more)					

¹: The distance varies depending on the cable to be used. For details, consult the closest Mitsubishi Electric System & Service office.

²: The values in the table are given for your reference.

³: The distances required when the coaxial cable 3C-2V (JIS C 3501) is used.

⁴: The distance varies depending on the cable to be used. When the bending radius of the cable is larger than the indicated value, keep a space appropriate to the bending radius.

● GT11

GOT main unit	A, D	B	C		(Unit: mm)
			When CF card is not used	When CF card is used	
GT1155	50 or more (20 or more)	80 or more ¹⁾ (20 or more)	50 or more ²⁾ (20 or more)	100 or more	100 or more (20 or more)
GT1150					

¹⁾: 50 or more (20 or more) in the case of vertical installation

²⁾: 80 or more (20 or more) in the case of vertical installation

● GT10

GOT main unit	A	B	C	D	E	(Unit: mm)
GT105 [□]	50 or more (20 or more)	80 or more (20 or more)	50 or more (20 or more)	50 or more (20 or more)	100 or more (20 or more ³⁾)	
GT104 [□]						
GT1030	50 or more (20 or more)	50 or more (20 or more)	50 or more (20 or more)	50 or more	80 or more (20 or more ²⁾)	
GT1020						

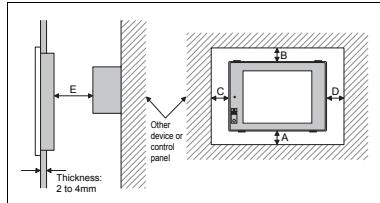
¹⁾: 50 or more when an RS-232/USB conversion adapter is used.

²⁾: 80 or more when a personal computer connection cable is used or when a personal computer RS-232/USB interface is used for connecting multiple GOTs.

³⁾: 50 or more when an RS-232 interface is used for using an RS-232/USB conversion adapter.

⁴⁾: 80 or more when using a USB cable or a memory board.

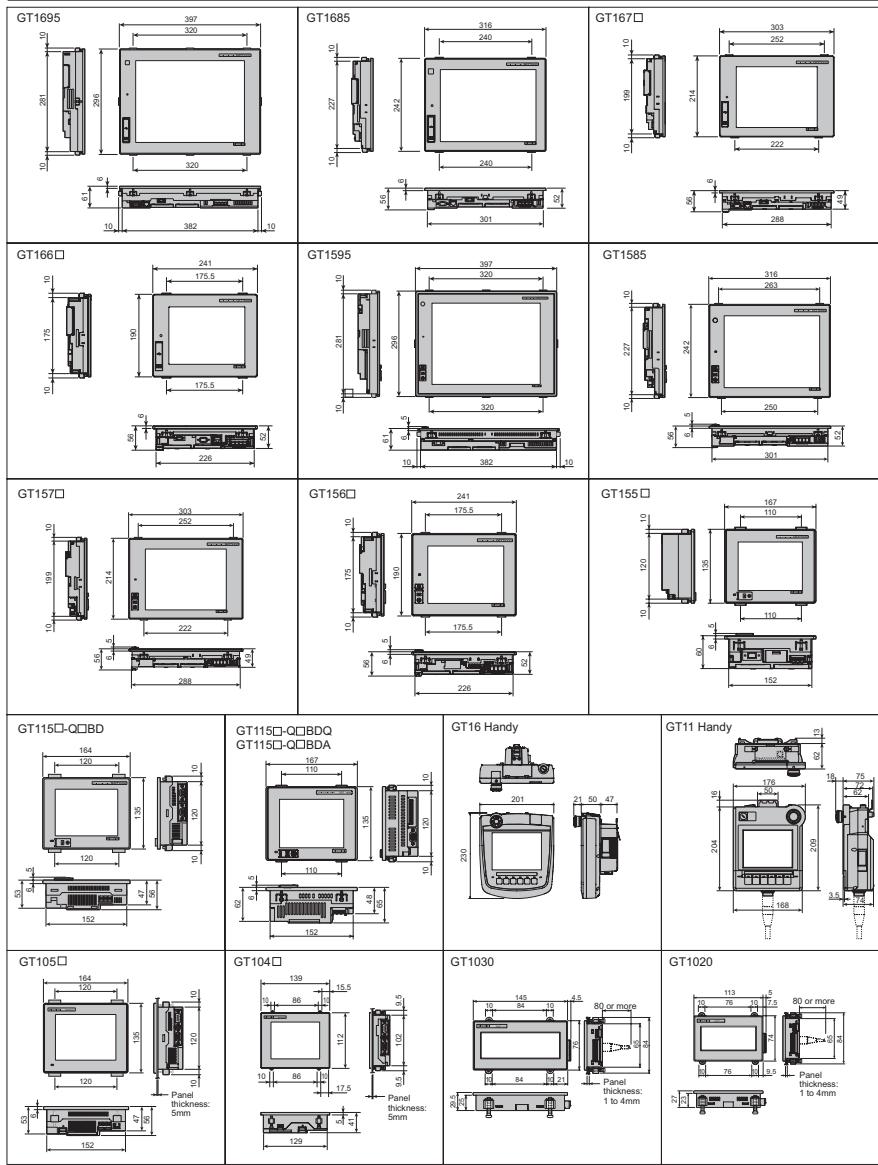
[Fig. A]



1.5 External Dimensions

GOT main unit

(Unit: mm)



Bus connection cables		
Cable model name	Cable length	External dimensions
GT15-QCDB	0.6, 1.2, 3, 5, 10m	Fig. 1
GT15-QCDBS	15, 20, 25, 30, 35m	Fig. 1
GT15-CQNB	1.2, 3, 5m	Fig. 2
GT15-ACDB	0.6, 1.2, 3, 5m	Fig. 3
GT15-A37CDB-S1	1.2, 2.5m	Fig. 4
GT15-A37CDB	1.2, 2.5m	Fig. 5
GT15-AISCDB	0.7, 1.2, 3, 5m	Fig. 6
GT15-AISCCNB	0.45, 0.7, 3, 5m	Fig. 7
GT15-CDEXXS-1*1	10, 6, 20, 6, 30.6m	Figs. 8 & 9
GT15-EXCNB	0.5m	Fig. 8
GT15-CCDBS	0.7, 1.2, 3, 5, 10, 20, 30m	Fig. 9
GT15-J2C10B	1m	Fig. 10

*1: GT15-CDEXXS-1 is a set consisting of GT15-EXCNB and GT15-CCDBS.
(See Fig. A.)

PLC side
GOT side

Fig. A
GT15-EXCNB (Fig. 8) GT15-CCDBS (Fig. 9)

Fig. 1
Fig. 2
Fig. 3
Fig. 4
Fig. 5
Fig. 6
Fig. 7
Fig. 8
Fig. 9
Fig. 10

(Unit: mm)

RS-422 cables		
Cable model name	Cable length	External dimensions
GT16-C02R4-9S	0.2m	Fig. 11
GT01-C30R4-25P	3m	Fig. 12
GT01-C0R4-25P	10, 20, 30m	Fig. 13
GT01-C0R4-8P	1, 3, 10, 20, 30m	Fig. 14
GT10-C0R4-8P	1, 3, 10, 20, 30m	Fig. 15
GT10-C0R4-25P	3, 10, 20, 30m	Fig. 16
GT10-C10R4-8PL	1m	Fig. 17

RS-232 cables		
Cable model name	Cable length	External dimensions
GT01-C30R2-6P	3m	Fig. 18
GT01-C30R2-9S	3m	Fig. 19
GT01-C30R2-25P	3m	Fig. 20
GT10-C30R2-6P	3m	Fig. 21

RS-485 terminal block conversion unit		
Model name	Cable length	External dimensions
FA-LTBGTR4CBL	0.5, 1, 2m	Fig. 22

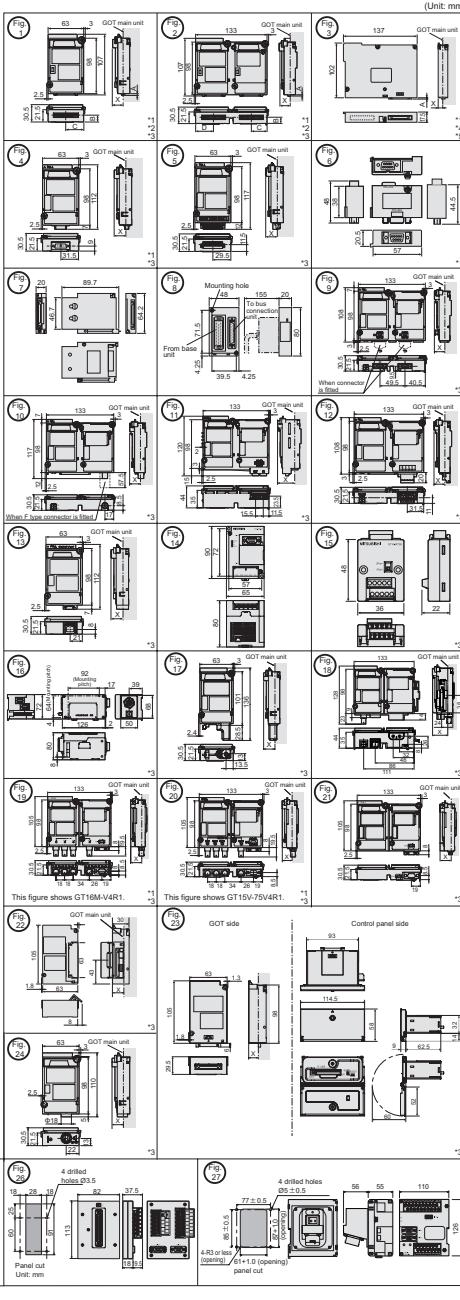
Fig. 11
Fig. 12
Fig. 13
Fig. 14
Fig. 15
Fig. 16
Fig. 17
Fig. 18
Fig. 19
Fig. 20
Fig. 21
Fig. 22

(Unit: mm)

Communication units/optional units

● Communication units/bus extension connector boxes

	Product name	Model name	External dimensions
Bus connection unit	Standard model of bus connection unit for QCPU (Q mode)/motion controller CPU (Q Series)	GT15-QBUS	Fig. 1
	Standard model of bus connection unit for QnA/ACP/UM motion controller CPU (A Series)	GT15-QBUS2	Fig. 2
	Thin model of bus connection unit for QCPU (Q mode)/motion controller CPU (Q Series)	GT15-ABUS	Fig. 1
	Thin model of bus connection unit for QnA/ACP/UM motion controller CPU (A Series)	GT15-ABUS2	Fig. 2
Serial communication unit	RS-232 serial communication unit (D-sub 9-pin (male))	GT15-RS2-9P	Fig. 4
	RS-422/485 serial communication unit (D-sub 9-pin (female))	GT15-RS4-9S	Fig. 4
	RS-422/485 serial communication unit (DB-9 female)	GT15-RS4-TE	Fig. 5
	RS-422→RS-422 conversion unit (9-pin)	GT15-RS2T4-9P	Fig. 6
RS-422 conversion unit	RS-422→RS-422 conversion unit (25-pin)	GT15-RS2T4-25P	Fig. 6
	Bus connector conversion box	A96T-CNB	Fig. 7
MELSECNET/H	Optical loop unit	GT15-J7LP23-25	Fig. 9
communication unit	C coaxial bus unit	GT15-J7BR13	Fig. 10
CC-Link IE controller network communication unit	GT15-J7GP23-SX	Fig. 11	
CC-Link communication unit	Intelligent device unit	GT15-J6IBT13	Fig. 12
Ethernet communication unit	GT15-J7E1-100	Fig. 13	
Serial multi-drop connection unit	GT01-RS4-M	Fig. 14	
Connector conversion adapter	GT10-9PTSS	Fig. 15	
CC-Link interface unit	GT11H-(S)-CCL	Fig. 16	



● Optional units

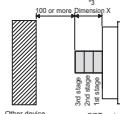
	Product name	Model name	External dimensions
Printer unit		GT15-PRN	Fig. 17
Multimedia unit		GT16-MM	Fig. 18
Video input unit		GT16M-V4	Fig. 19
		GT15V-75V4	Fig. 20
RGB input unit		GT16M-R2	Fig. 19
		GT15V-75R1	Fig. 20
Video/RGB input unit		GT16M-VAR1	Fig. 19
		GT15V-75V4R1	Fig. 20
RGB output unit		GT16M-ROUT	Fig. 21
		GT15V-75ROUT	Fig. 21
CF card unit		GT15-CFOUT	Fig. 22
CF card extension unit		GT15-CFEX-C08SET	Fig. 23
Audio output unit		GT15-SOUT	Fig. 24
External input/output unit		GT15-DIOR	Fig. 25
		GT15-DIOU	Fig. 25
		GT15-CMB-37S	Fig. 26
Handy GOT connector conversion box		GT16H-CNB-42S	Fig. 27

*1 : The connector shape varies depending on the model.

*2 : Dimensions A to D for each communication unit

Model name	A	B	C	D
GT15-QBUS	2.5	12	31.5	—
GT15-QBUS2	2.5	11	29	33.5
GT15-ABUS	4.5	15	29.5	—
GT15-ABUS2	4.5	11	31	31

*3 : Dimension X when GOT is installed



● GOT main unit factor

Type of GOT	Y (main unit factor)
GT1695	-2
GT1595	-0.5
GT1685, GT15L85	-3.5
GT167, GT157	-0.5
GT166, GT156, GT155	1.5

(Unit: mm)

● Option factor for communication units/options units

Model name	Z (option factor)
GT15-CFCF, GT15-CFEX-C08SET	20.5
GT16M-CF, GT16M-R2, GT16M-V4R1, GT16M-ROUT,	
GT15V-75V4, GT15V-75R1, GT15V-75V4R1, GT15V-75ROUT,	
GT15-QBUS, GT15-QBUS2, GT15-ABUS, GT15-ABUS2,	
GT15-RS2-9P, GT15-RS4-9S, GT15-RS4-TE, GT15-J7LP23-25,	
GT15-J7E1-100, GT15-J7BR13, GT15-J6IBT13, GT15-PRN,	
GT15-DIO, GT15-DIOR, GT15-SOUT	
GT16M-MM, GT15-J7GP23-SX	35.5

(Unit: mm)

● Calculation of dimension X

One-layer configuration: Y (main unit factor) + Z (option factor)

Two-layer configuration: Y (main unit factor) + Z (option factor) + Z (option factor)

Three-layer configuration: Y (main unit factor) + Z (option factor) + Z (option factor) + Z (option factor)

*4 : Dimensions A for each communication unit

(Unit: mm)

Model name	A
GT15-75QBUSL	2.5
GT15-75QBUS2L	2.5
GT15-75ABUSL	4
GT15-75ABUS2L	4

*5 : Dimension X when GOT is installed

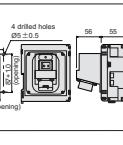
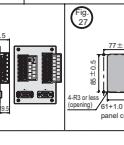
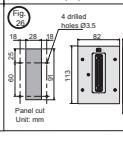
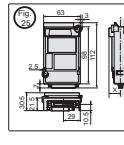
*6 : Dimensions for GOT

For GT15
15" : 6.5 "15"-10.4" 8

12.1" : 5 "12.1"-12" 5

10.4" : 8 "8.4"-5.7" 10

8.4" : 10



MEMO

2. SOFTWARE

This chapter describes software required for using the GOT.

<u>2.1 Product Lineup</u>	<u>28</u>
<u>2.2 Specifications (Operating Environment)</u>	<u>30</u>

2. SOFTWARE

2.1 Product Lineup

**More intuitive. No more wasted time.
The screen design software optimized for usability.**

GOT1000 Screen Design Software

MELSOFT GT Works3

7 points to easily create new screens and transfer them to the GOT

Point 1 Work tree

View the whole project, create a new screen, and add and delete screens with ease.

Property sheet

A selected object or graphic's settings are displayed as a tree view. Set colors, devices, etc., on the property sheet without opening a dialog box. When selecting the same objects or graphics, change color, character size, etc., all at the same time.

Temporary area

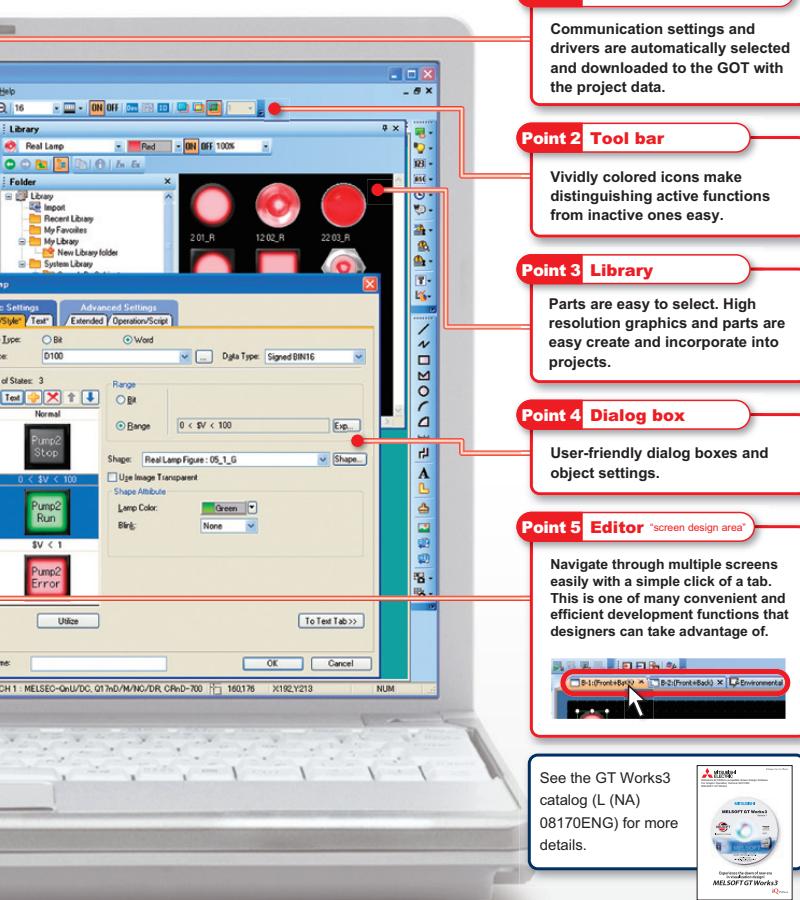
Reduce workspace clutter by moving objects off the display area.

MELSOFT iQ Works improves design efficiency

Batch parameter check and system labels of MELSOFT Navigator are supported.

Related tools

GT Works3 comes with the Data Transfer Tool, GT Converter2, and other tools.

**Point 7 Simulator**

Preview operation without connecting to a GOT.

Point 6 Communication with the GOT

Communication settings and drivers are automatically selected and downloaded to the GOT with the project data.

Point 2 Tool bar

Vividly colored icons make distinguishing active functions from inactive ones easy.

Point 3 Library

Parts are easy to select. High resolution graphics and parts are easy to create and incorporate into projects.

Point 4 Dialog box

User-friendly dialog boxes and object settings.

Point 5 Editor "screen design area"

Navigate through multiple screens easily with a simple click of a tab. This is one of many convenient and efficient development functions that designers can take advantage of.



See the GT Works3 catalog (L (NA) 08170ENG) for more details.



2.2 Specifications (Operating Environment)

MELSOFT GT Works3 (English version) operating environment

Item	Description																																
Personal computer	PC/AT compatible machine on which the following OS operates																																
OS	Microsoft® Windows® 2000 Professional Service Pack 4 or later (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ¹ Microsoft® Windows® XP Professional Service Pack 2 or later (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{1,2,4} Microsoft® Windows® XP Home Edition Service Pack 2 or later (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{1,2,4} Microsoft® Windows® 7 Ultimate (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{2,7,9,10} Microsoft® Windows® 7 Enterprise (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{2,7,9,10} Microsoft® Windows® 7 Professional (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{2,7,9,10} Microsoft® Windows® 7 Home Premium (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{2,7,9,10} Microsoft® Windows® 7 Starter (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{2,7,9,10}																																
CPU	1 GHz or more recommended																																
Required memory	512 MB or more recommended	1 GB or more recommended																															
Display	Resolution XGA (1024 × 768 dots) or more																																
Free hard disk space	For installation: 1.6GB or more recommended For operation: 512MB or more recommended																																
Display colors	High color (16 bits) or more																																
Simulation on a PC requires the following software:																																	
GX Works2 version 1.12M or later ⁵ or GX Simulator version 5.00A or later ⁶																																	
¹ The applicable software version of GX Works2 or GX Simulator varies depending on the PLC CPU to be simulated.																																	
Software	<table border="1"> <thead> <tr> <th>PLC CPU to be simulated</th> <th>GX Simulator</th> <th>GX Works2</th> </tr> </thead> <tbody> <tr> <td>GFXCPU (A mode), ACPU, motion controller CPU (A series)</td> <td>Version 5.00A or later</td> <td>—</td> </tr> <tr> <td>FX0 series, FX0N series, FX0S series, FX1 series, FX1N series, FX1NC series, FX1S series, FX2 series, FX2C series, FX2N series, FX2NC series</td> <td>Version 5.40E or later</td> <td>Version 1.24A or later</td> </tr> <tr> <td>QCPU (Q mode) (excl. Q00J, Q00 and Q01CPU)</td> <td>Version 6.00A or later</td> <td>Version 1.12N or later</td> </tr> <tr> <td>Q00JCPU, Q00CPU, Q01CPU</td> <td>Version 7.20W or later</td> <td>Version 1.24A or later</td> </tr> <tr> <td>Q02PHCPU, Q06PHCPU</td> <td>Version 6.10L or later</td> <td>Version 1.24A or later</td> </tr> <tr> <td>Q12PHCPU, Q25PHCPU</td> <td>Version 6.20W or later</td> <td>Version 1.24A or later</td> </tr> <tr> <td>Q12PRHCPU, Q25PRHCPU</td> <td>Version 7.08J or later</td> <td>Version 1.24A or later</td> </tr> <tr> <td>FX3uc series</td> <td>Version 7.22Y or later</td> <td>Version 1.24A or later</td> </tr> <tr> <td>FX3g series⁷</td> <td>Version 7.23Z or later</td> <td>Version 1.12N or later</td> </tr> </tbody> </table>			PLC CPU to be simulated	GX Simulator	GX Works2	GFXCPU (A mode), ACPU, motion controller CPU (A series)	Version 5.00A or later	—	FX0 series, FX0N series, FX0S series, FX1 series, FX1N series, FX1NC series, FX1S series, FX2 series, FX2C series, FX2N series, FX2NC series	Version 5.40E or later	Version 1.24A or later	QCPU (Q mode) (excl. Q00J, Q00 and Q01CPU)	Version 6.00A or later	Version 1.12N or later	Q00JCPU, Q00CPU, Q01CPU	Version 7.20W or later	Version 1.24A or later	Q02PHCPU, Q06PHCPU	Version 6.10L or later	Version 1.24A or later	Q12PHCPU, Q25PHCPU	Version 6.20W or later	Version 1.24A or later	Q12PRHCPU, Q25PRHCPU	Version 7.08J or later	Version 1.24A or later	FX3uc series	Version 7.22Y or later	Version 1.24A or later	FX3g series ⁷	Version 7.23Z or later	Version 1.12N or later
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Q00JUCPU, Q00UCPU, Q01UCPU, Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q10UDHCPU, Q13UDHCPU, Q20UDHCPU, Q26UDHCPU, Q30DECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU																																	
LCPU																																	
—																																	
Q50UDEHCPU, Q100UDEHCPU																																	
Version 1.24A or later																																	
Version 1.30G or later																																	
Other	Mouse, keyboard, printer, CD-ROM drive, sound function (sound card) ⁸ and loudspeakers ⁹ used with the above OS																																
Applicable GOT	GOT1000 Series ¹⁰																																

¹: Installation requires administrator authority. Simulating the GOT-A900 requires administrator authority.

²: Installation requires administrator authority. Using GT Works3 requires an account higher than the standard user.

To use GT Works3 with another application, if an administrator account is used to run the application then use an administrator account to run GT Works3.

Simulating the GOT-A900 requires administrator authority.

³: The following functions are not supported.

• Compatible Mode • Fast User Switching • Desktop Theme (Font) Change • Remote Desktop

⁴: Only the 32-bit OS is applicable.

⁵: Windows XP Mode is not supported.

⁶: Use GX Simulator3, GX Developer, GX Simulator, and GX Works2 for the same language.

⁷: The GOT-A900 cannot be simulated.

⁸: May be required when the simulation function is used.

⁹: The GT10 cannot use the simulation function.

¹⁰: Windows Touch features are not supported.

GT SoftGOT1000 (English version) operating environment

Item	Description	
	With DOS/V personal computer	With PC CPU module
Personal computer	PC/AT compatible machine on which the following OS operates	CONTEC PC CPU unit (PPC-852-212, PPC-852-217, PPC-852-226) ⁷
OS	Microsoft® Windows® 2000 Professional Service Pack 4 or later (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows® XP Professional Service Pack 2 or later (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows® XP Embedded (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows Vista® Ultimate (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows Vista® Enterprise (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows Vista® Business (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows Vista® Home Premium (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows Vista® Home Basic (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9} Microsoft® Windows® 7 Ultimate (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9,12,13} Microsoft® Windows® 7 Enterprise (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9,12,13} Microsoft® Windows® 7 Professional (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9,12,13} Microsoft® Windows® 7 Home Premium (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9,12,13} Microsoft® Windows® 7 Starter (English, Simplified Chinese, Traditional Chinese, Korean, German versions) ^{7,9,12,13}	
CPU	Recommended: 1GHz or more	
Required memory	Other than Microsoft® Windows Vista®, Microsoft® Windows® 7: 512MB or more Microsoft® Windows Vista™, Microsoft® Windows® 7: 1GB or more recommended	
Display	Resolution of VGA (640 × 480 dots) or more	
Free hard disk space ¹¹	For installation: 1.6GB or more recommended For operation: 512MB or more recommended	
Display colors	High color (16 bits) or more	
Hardware ¹⁶	GT15-SGTKEY-U (License key for (USB port)) GT15-SGTKEY-P (License key for (parallel port))	GT15-SGTKEY-U (License key for (USB port))
Software	When creating or editing project data When using with PX Developer - GT Designer3 Version 3.5 - When using with PX Developer - PX Developer Version 1.14Q or later - GT Designer3 Version 1.01B or later	
Other	Mouse, keyboard, printer, CD-ROM drive, sound function (sound speaker), or speaker	

Specification

Item	Description
Resolution (dots)	640 × 480, 800 × 600, 1024 × 768, 1280 × 1024, 1600 × 1200 Specifiable resolution (640 to 1920 × 480 to 1200)
Display colors	65,536 colors
Memory capacity	57MB

Connection configuration¹⁰
• Bus connection¹¹, CPU direct connection, computer link connection, CC-Link IE controller network connection, MELSECNET connection, Ethernet connection

¹: Use of GT Designer3 and PX Developer requires additional memory space. For more specifications required when using the PX Developer monitor tool, refer to the PX Developer Version1 Operation Manual (Monitor Tool). Additional memory space is also required when using user-created applications.

²: Administrator authority is required to install GT SoftGOT1000.

³: Administrator authority is required to install and operate GT SoftGOT1000.

⁴: The following functions are not supported.

- Compatible Mode
- Fast User Switching

- Desktop Themes (Font) Change
- Remote Desktop

⁵: GT Designer3 and GT SoftGOT1000 must be installed from the same CD Win32.

⁶: The PC must be equipped with a USB port to use the GT15-SGTKEY-U. The PC must be equipped with a parallel port (Centro/printer connector) to use the GT15-SGTKEY-P.

⁷: CONTEC PC CPU unit, refer to the manual for the PC CPU module.

⁸: Use is possible only when PPC-852-226 is preinstalled.

⁹: Supported only by a 32-bit OS.

¹⁰: The required devices vary depending on the connection configuration.

¹¹: Connection only when using a PC CPU unit.

¹²: Windows XP Mode is not supported.

¹³: Windows Touch features are not supported.

MEMO

3. FUNCTION

This chapter describes available functions for the GOT.

3.1 Functions	34
3.2 Precautions for Use	36
3.3 Overview of Each Function	58

3. FUNCTION

3.1 Functions

● Functions for each model

Category	Function ^{*1}	Optional function board ^{*2}	Extended/optional function OS installation ^{*2}	Other necessary devices ^{*3}	Details page	Model				
						GT16	GT15	GT11	GT10	GT SoftGOT 1000
Hardware specifications	Clock function		(Battery)	P.58	●	●	●	△ ^{*12}	●	
	Printer	Required	(Printer unit)	P.80	△ ^{*20}	●	-	-	-	●
	Video input/RGB input/RGB output	Required	Video/RGB unit	P.58	△ ^{*19}	△ ^{*4}	-	-	-	-
	USB mouse/keyboard connection	Required		P.60	△ ^{*20}	-	-	-	-	-
	Backlight shutdown detection function					●	●	●	△ ^{*15}	-
Main unit functions	Start from CF card	Required (GT15 only)	CF card	-	●	●	-	-	-	-
	FA transparent function			P.61	● ^{*21}	● ^{*6}	-	-	-	-
	Multi-channel function	Required (GT15 only)			●	Up to 4ch	Up to 4ch	-	-	-
	Gateway function		Required (CF card)	P.62	●	●	-	-	-	-
	MES interface function	Required	Required (CF card)	P.63	●	●	-	-	-	●
Screen design	SortGOT-GOT link function		Required			●	●	●	-	●
	Base screen, window screen					●	●	●	●	●
	Dialog window display					●	●	●	-	●
	Graphic drawing	BMP image display JPEG image display DXF data IGES data			P.64	●	●	●	●	●
	Standard fonts (basic)	(Japanese, Japanese (supporting European languages), Chinese (Simplified), Chinese (Simplified, supporting European languages), Chinese (Traditional, supporting European languages))				●	●	●	●	●
High-quality font	Standard fonts (optional)	Chinese (Simplified), Chinese (Traditional), Japanese	Required		P.65	●	●	-	-	●
	TrueType font					●	●	●	●	●
	TrueType font (7 segments)					●	●	●	●	●
	Windows [®] font					●	●	●	●	●
	Stroke basic font (extended)	Required				●	●	-	-	●
Multilingual support function	Stroke font (optional)	Required			P.66	●	●	-	-	●
	Logo character function					●	●	●	●	●
	Object superimposition (layers)					●	●	●	-	●
	Station No. switching				P.67	●	●	●	●	●
	Multilingual support function				P.69	●	●	●	●	●
Startup logo	Password				P.70	●	●	●	●	●
	Startup logo					●	●	●	●	●
	Data operation function					●	●	●	●	●
	Offset function					●	●	●	●	●
	Security function	Security level authentication			P.73	●	●	●	●	●
Panel meter display	Operator authentication		Required (CF card/USB memory ^{*16})			●	●	-	-	●
	Lamp display				P.72	●	●	●	●	●
	Touch switch					●	●	●	●	●
	Numeric display/input				P.73	●	●	●	-	●
	Data list display					●	●	●	-	●
Trend graph/Line graph/Bar graph/Statistical graph	ASCII display/input				P.73	●	●	●	●	●
	Kana-Kanji conversion function	Normal version	Required			-	●	-	-	-
		Enhanced version	Required			●	●	-	-	●
	Clock display				P.73	●	●	●	●	●
	Comment display				P.74	●	●	●	●	●
Scanning alarm display	Extended alarm monitoring/display		(CF card) (Battery)	-	P.75	●	●	-	-	●
	Alarm display					●	●	●	△ ^{*7}	●
	Alarm history display		(CF card)			●	●	●	●	●
	Scrolling alarm display					-	-	●	-	-
	Parts display		(CF card)		P.76	●	●	●	●	●
Status observation function	Parts movement		(CF card)			●	●	●	●	●
	Panel meter display					●	●	●	●	●
	Level display					●	●	●	-	●
	Trend graph/Line graph/Bar graph/Statistical graph				P.77	●	●	●	●	●
	Historical trend graph ^{*5}	Required ^{*5}	(CF card)			●	●	-	-	●
Advanced recipe function	Scatter graph				P.78	●	●	●	-	●
	Status observation function					●	●	●	●	●
	Advanced recipe function	Required	(CF card)		P.79	●	●	-	-	●
Recipe function	Recipe function	Required	(CF card)			●	●	●	●	●

Category	Function ^{*1}	Optional function board ^{*2}	Extended/optional function OS installation ^{*12}	Other necessary devices ^{*3}	Details page	Model				
						GT16	GT15	GT11	GT10	GT SoftGOT 1000
Screen design	Report function	Required	(Printer unit) CF card	P.80	△ ^{*20}	●	-	-	-	●
	Hard copy function File saving in CF card	Required	(Printer unit)	P.80	● △ ^{*20}	●	-	-	-	●
	Printing on printer	Required	-	P.82	△ ^{*20}	●	△ ^{*10}	●	-	●
	Barcode function	Required	-	P.83	△ ^{*19}	-	-	-	-	-
	Remote personal computer operation (Ethernet)	Required	License	P.83	△ ^{*19}	△ ^{*4}	-	-	-	-
	Remote personal computer operation (Serial)	Required	Video/RGB input unit	P.82	△ ^{*19}	-	-	-	-	-
	RFID function	Required	-	P.81	△ ^{*20}	●	△ ^{*10}	-	-	-
	Multimedia function	Required	Multimedia unit, CF card	P.82	-	-	-	-	-	-
	Operation panel function	Required	External I/O unit	P.81	△ ^{*20}	●	-	-	-	●
	Operation log function	Required	CF card	P.85	●	●	-	-	-	●
Maintenance functions	Document display function	Required (GT15 only)	CF card	P.84	●	●	-	-	-	●
	Logging function	Required	(CF card) (Battery)	P.86	●	●	-	-	-	●
	Log viewer function	Required	CF card/ USB memory	P.87	●	-	-	-	-	-
	Script function	Project script	-	P.87	●	●	●	-	-	●
	Screen script	Screen script	-	P.87	●	●	●	-	-	●
	Object script	Object script	-	P.87	●	●	-	-	-	●
	Device data transfer function	Required	-	P.88	●	●	-	-	-	-
	System monitor function	Required	-	P.88	●	●	-	-	-	-
	Device monitor function	Required	-	P.88	●	●	-	-	-	-
	List editor for A	Required	-	P.88	●	●	△ ^{*13}	-	-	-
Maintenance functions	List editor for FX	Required	-	P.88	●	●	△ ^{*14}	△ ^{*15}	-	-
	Ladder monitor function	Required (GT15 only)	(CF card)	P.89	●	△ ^{*9}	-	-	-	-
	Ladder editor function	Required (GT15 only)	CF card	P.89	●	△ ^{*17}	-	-	-	-
	Intelligent unit monitor function	Required	-	P.90	●	△ ^{*9}	-	-	-	-
	Q motion monitor function	Required	-	P.90	●	●	-	-	-	-
	Servo amplifier monitor function	Required	-	P.90	●	●	-	-	-	-
	Network monitor function	Required	-	P.90	●	●	-	-	-	-
	CNC monitor function	Required	-	P.90	△ ^{*18}	△ ^{*8}	-	-	-	-
	SFC monitor function	Required (GT15 only)	CF card	P.91	●	△ ^{*9}	-	-	-	-
	Motion SFC monitor function	Required (GT15 only)	CF card	P.91	●	△ ^{*9}	-	-	-	-
Maintenance functions	CNC data input/output function	Required	CF card/ USB memory ^{*16}	P.91	△ ^{*18}	△ ^{*8}	-	-	-	-
	Backup/restoration function	Required	CF card/ USB memory ^{*16}	P.92	●	●	-	-	-	-
	MELSEC-L troubleshooting function	Required	-	P.92	●	-	-	-	-	-
	Maintenance time notification function	Battery	-	P.92	●	●	-	-	-	-

*1: Function contents, such as the number of setting points and data storage location, vary depending on the model.

*2: The option function board is required depending on the function version or hardware version of GOT main unit.

In addition, the option function board to be used differs depending on the function.

For the details, refer to "3.2 Precautions for Use". For GT10 and GT SoftGOT1000, an option function board and the installation of the extended function OS and option OS are not required.

*3: "Other devices" refers to necessary options or option units other than the option function board.

The devices in parentheses are necessary depending on the purpose of operation.

For details, refer to "3.2 Precautions for Use".

*4: Available only for GT1585V and GT1575V.

*5: The logging function must be set before the historical trend graph is used. The option OS (logging) must be installed.

*6: There are structural restrictions for GT115□HS-Q□BD.

*7: Only the user alarm is available.

*8: Only GT1595-XTB□, GT1585(V)-STB□ and GT1575(V)-STB□ are available.

*9: Only GT1595-XTB□, GT1585(V)-STB□, GT1575(V)-STB□, GT1575-VTB□, GT157□-VNB□, GT1565-VTB□, and GT1562-VNB□ and GT1555-VTBD□ are available.

*10: Only GT115□-Q BD, GT115□-Q BD are available.

*11: Up to two channels for GT155□.

*12: Only GT105□, GT104□, and GT1030 are available.

*13: Only GT115□-Q BDA is available.

*14: Only GT115□-Q BD and GT155□-HS-Q□BD are available.

*15: Only GT105□ is available.

*16: The USB memory is only available for GT16.

*17: Only GT1595-XTB□, GT1585(V)-STB□, GT1575(V)-STB□, GT1575-VTB□, GT157□-VNB□, GT1565-VTB□, and GT1562-VNB□ are available.

*18: Only GT1695-XTB□, GT1685M-XTB□, GT1675M-STB□, and GT1665M-STB□ are available.

*19: Only GT1695M-XTB□, GT1685M-STB□, GT1675M-STB□, GT1665M-STB□, and GT1665M-VTB□ are available.

*20: Only GT1695M-XTB□, GT1685M-STB□, GT1675M-STB□, GT1675M-VTB□, GT167□-VTB□, GT1665M-STB□, GT1665M-VTB□, and GT166□-VTB□ are available.

*21: There are structural restrictions for GT1665HS-VTBD.

*22: Only GT115□-Q BD is available.

*23: Only GT1695M-XTB□ and GT1685M-STB□ are available.

*24: Only GT1595-XTB□, and GT1585(V)-STB□ are available.

3.2 Precautions for Use

● Selecting option function board and CF card

(1) When using option functions or extended functions

To use each function, extended function OS, or option OS and option function board is required. For installing the extended function OS or option OS on the GOT, make sure that the user area of the specified drive has enough free space for the OS memory space shown on the next page. For details of data transfer, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

The following shows the option function boards applicable to each GOT.

GOT	Option function board
GT16	GT16-MESB ^{*1}
GT15	GT15-FNB, GT15-QFNB, GT15-QFNB16M, GT15-QFNB32M, GT15-QFNB48M, GT15-MESB48M
GT11	GT11-50FNB
GT10	Not required

^{*1}: Not available for GT16 Handy.

An option function board (GT15-FNB or GT11-50FNB) is built in the following GOTs.

GOT	Model	Description ^{*1}
GT15	All models	
GT11	GT1155-QTBDQ, GT1155-QTBDA, GT1155-QSBDQ, GT1155-QSBD, GT1150-QLBDQ, GT1150-QLBDA	Function version D or later
	GT1155-QTBD	Hardware Version A or later
	GT1155HS-QSBD, GT1150HS-QLBD GT1155-QSBD, GT1150-QLBD	Hardware Version B or later Hardware Version C or later

^{*1}: For how to confirm the function version or hardware version, refer to the following.

 User's Manual for the GOT used

When using the above GOTs, the option functions operated with the GT15-FNB or GT11-50FNB can be used without installing any additional option function board.

For using functions operated with the GT16-MESB, GT15-QFNB(M), or GT15-MESB48M, and for adding more memory to the GT15, install an applicable option function board.

For the necessary option function board for each option function, refer to the following manual.

 GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3

An additional option function board can be installed on the GOT with a built-in option function board. (However, an option function board inapplicable to the GOT, such as a GT15 option function board to the GT16, cannot be used.)

For GT16

(a) Extended function OS

○: Required (Either one) ×: Unusable

Function name	Extended function OS name	OS memory space (user area) ^{*1}		Option function board GT16-MESB ^{*4}
		Built-in flash memory (ROM)	User memory (RAM)	
Barcode ^{*4}	Bar code	50KB	84KB	Not required
RFID ^{*4}	RFID	50KB	166KB	Not required
System monitor	System monitor	450KB	692KB	Not required
Report ^{*4}	Report	150KB	235KB	Not required
	Printer (PictBridge)	552KB	1104KB	Not required
	Printer (Serial)	80KB	200KB	Not required
Stroke font ^{*2}	Stroke Font Support Data	300 KB	400 KB	Not required
	Stroke Standard Font(JPN)	2160KB	2160KB	Not required
	Stroke Standard Font(JPN)(supporting Hangul)	3175KB	3175KB	Not required
	Stroke Standard Font(China GB)	1474KB	1474KB	Not required
	Stroke Standard Font (China GB)(supporting Hangul)	2016KB	2016KB	Not required
Video display ^{*4*5}	Video/RGB	298KB	480KB	Not required
RGB display ^{*4*5}		292KB	1074KB	Not required
Multimedia ^{*4*5}	Multimedia	298KB	480KB	Not required
Remote personal computer operation (serial) ^{*4*5}		50KB	84KB	Not required
Remote personal computer operation (Ethernet) ^{*4*5}	PC Remote Operation (Ethernet)	860KB	5130KB	Not required
Backup/restore	Backup/Restore	420KB	766KB	Not required
Operator Authentication	Operator authentication	460KB	730KB	Not required
MELSEC-L Troubleshooting	MELSEC-L Troubleshooting Function	340KB	770KB	Not required
SoftGOT-GOT link function	SoftGOT-GOT Link Function	100KB	200KB	Not required
Log viewer	Log viewer	1434KB	3882KB	Not required
Sound Output ^{*4}	Sound Output	100KB	200KB	Not required
External I/O / Operation Panel ^{*4}	External I/O / Operation Panel	70KB	100KB	Not required
CNC data I/O ^{*3 *4}	CNC Data I/O	210KB	383KB	Not required
	GOT Platform Library	77KB	200KB	Not required
Device data transfer	Device Data Transfer	50KB	100KB	Not required
USB mouse/keyboard function ^{*4}	USB Mouse/Keyboard	80KB	200KB	Not required

*1 The OS memory space differs between the built-in flash memory (ROM) and the user memory (RAM). When writing data, including the OS, communication drivers, and project data, from the built-in flash memory (ROM) to the user memory (RAM), the OS memory space increases. Make sure that the total data size does not exceed the user memory (RAM) capacity.

*2 For using fonts, install option fonts if necessary.

For how to use fonts and the setting method, refer to the following manual.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

*3 Applicable to the GT1695M-X, GT1685M-S, GT1675M-S and GT1665M-S only.

*4 Not applicable to GT16 Handy.

*5 Applicable to the GT1695M-X, GT1685M-S, GT1675M-V, GT1675M-S, GT1665M-V and GT1665M-S only.

(b) Option OS

○: Required (Either one) ×: Unusable

Function name	Option OS name	OS memory space (user area) ^{*1}		Option function board GT16-MESB ^{*6}
		Built-in flash memory (ROM)	User memory (RAM)	
Maintenance timing setting	Not required	-	-	Not required
Multi-channel	Not required	-	-	Not required
KANJI regions	Standard Font (China GB)	1280KB	1280KB	Not required
	Standard Font (China Big5)	1920KB	1920KB	Not required
	Standard Font (Japanese)	1280KB	1280KB	Not required
	Stroke Font (JPN)	1037KB	1037KB	Not required
	Stroke Font (China GB5)	1248KB	1248KB	Not required
	Stroke Font (China Big5)	1680KB	1680KB	Not required
Operation log	Operation Log	384KB	1221KB	Not required
	Device name converter	400KB	800KB	Not required
Document display	Document Display	150KB	3072KB	Not required
Kana-kanji conversion (enhanced version)	KANA KANJI(JPN) (Enhanced Version)	1242KB	2774KB	Not required
Historical Trend Graph	Not required	-	-	Not required
Logging	Logging	380KB	710KB	Not required
Recipe	Recipe	70KB	100KB	Not required
Advanced Recipe	Advanced Recipe	310KB	1187KB	Not required
Object Script	Object Script	180KB	360KB	Not required
Ladder monitor	Ladder monitor for MELSEC-A	342KB	674KB	Not required
	Ladder monitor for MELSEC-FX	342KB	674KB	Not required
	Ladder monitor for MELSEC-Q/L/QnA	590KB	4170KB	Not required
Ladder editor ^{*2}	GOT Platform Library	77KB	200KB	Not required
	Ladder editor	2567KB	8192KB	Not required
	GOT Function Expansion Library	4729KB	19381KB	Not required
A list editor	List editor for MELSEC-A	542KB	1024KB	Not required
FX list editor	List editor for MELSEC-FX	542KB	1024KB	Not required
Intelligent module monitor	Intelligent module monitor	390KB	770KB	Not required
Network monitor	Network monitor	210KB	370KB	Not required
Q motion monitor	Q motion monitor	390KB	770KB	Not required
Servo amplifier monitor	Servo amplifier monitor	390KB	770KB	Not required
CNC monitor ^{*3 *6}	CNC monitor	390KB	770KB	Not required
SFC monitor ^{*4 *6}	GOT Platform Library	77KB	200KB	Not required
	SFC monitor	442KB	2108KB	Not required
	GOT Function Expansion Library	4729KB	19381KB	Not required
Motion SFC monitor ^{*5}	GOT Platform Library	77KB	200KB	Not required
	Motion SFC monitor	1240KB	12522KB	Not required
Gateway	Gateway (Server, Client)	50KB	100KB	Not required
	Gateway (Mail)	50KB	100KB	Not required
	Gateway (FTP)	50KB	84KB	Not required
MES interface ^{*6}	MES Interface	1598KB	13461KB	○

*1 The OS memory space differs between the built-in flash memory (ROM) and the user memory (RAM).

When writing data, including the OS, communication drivers, and project data, from the built-in flash memory (ROM) to the user memory (RAM), the OS memory space increases. Make sure that the total data size does not exceed the user memory (RAM) capacity.

*2 For using the ladder editor function, install all the OSs of [GOT Platform Library], [Ladder editor], and [GOT Function Expansion Library] on the GOT.

- *3 Applicable to the GT1695M-X, GT1685M-S, GT1675M-S, and GT1665M-S only.
- *4 For using the SFC monitor function, install all the OSs of [GOT Platform Library], [SFC monitor], and [GOT Function Expansion Library] on the GOT.
- *5 For using the motion SFC monitor function install all the OSs of [GOT Platform Library], [Motion SFC monitor], and [GOT Function Expansion Library] on the GOT.
- *6 Not applicable to GT16 Handy.

For GT15

(a) Extended function OS

○: Required (Either one) ×: Unusable

Function name	Extended function OS	OS memory space (user area)	Option function board		
			GT15-FNB	GT15-QFNB	GT15-QFNB M
Barcode	Bar code	84KB			Not required
RFID	RFID	166KB			Not required
System monitor	System monitor	746KB			Not required
	Report	235KB			Not required
Report ^{*4}	Printer (PictBridge)	1104KB			Not required
	Printer (Serial)	200KB			Not required
Stroke font ^{*1}	Stroke Font Support Data	400 KB			Not required
	Stroke Standard Font(JPN)	2160KB			Not required
	Stroke Standard Font (JPN)(supporting Hangul)	3175KB			Not required
	Stroke Standard Font (China GB)	1474KB			Not required
	Stroke Standard Font(China GB)(supporting Hangul)	2016KB			Not required
Video display ^{*2}	Video/RGB	512KB			Not required
RGB display ^{*2}					Not required
Remote personal computer operation ^{*2}	Video/RGB	512KB			Not required
Backup/restore	PC Remote Operation	84KB			Not required
Operator Authentication	Backup/Restore	820KB			Not required
Sound Output	Operator authentication	784KB			Not required
External I/O / Operation Panel	Sound Output	200KB			Not required
CNC data I/O ^{*3}	External I/O / Operation Panel	100KB			Not required
	CNC Data I/O	437KB			Not required
Device data transfer	GOT Platform Library	100KB			Not required
SoftGOT-GOT link function	Device Data Transfer	100KB			Not required
SoftGOT-GOT Link Function		200KB			Not required

*1 For using fonts, install option fonts if necessary.

For how to use fonts and the setting method, refer to the following manual.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

*2 Applicable to the GT1585V-S and GT1575V-S only.

*3 Applicable to the GT1595-X, GT1585V-S, GT1585-S, GT1575V-S, and GT1575-S only.

*4 For using the motion SFC monitor, install all the OSs of [GOT Platform Library] and [Motion SFC monitor] on the GOT.

For using the motion SFC monitor function, a capacity of 2577KB or more is required in the user area of the specified drive for installing the extended function OS and option OS.

A total memory capacity of 12622KB is required for using the motion SFC monitor function.

Therefore, to use the motion SFC monitor function, mount an option function board with 16MB or more memory on the GOT.

(b) Option OS

○: Required (Either one) ×: Unusable

Function name	Option OS name	OS memory space (user area)	B	Option function board		
			B	GT15-FNB	GT15-QFNB GT15-QFNBM	GT15-MESB48M
Maintenance timing setting	Not required	-	○	○	○	○
Multi-channel	Not required	-	×	○	○	○
KANJI regions	Standard Font (China GB)	1280KB	○	○	○	○
	Standard Font (China Big5)	1920KB	○	○	○	○
	Standard Font (Japanese)	1280KB	○	○	○	○
	Stroke Font (JPN)	1037KB	○	○	○	○
	Stroke Font (China GB5)	1248KB	○	○	○	○
	Stroke Font (China Big5)	1680KB	○	○	○	○
	Operation Log	1218KB	○	○	○	○
Operation log	Device name converter	800KB	○	○	○	○
Document display	Document Display	2048KB	×	○	○	○
Kana-kanji conversion* ¹⁰	KANA KANJI(JPN)* ¹⁰	1223KB	○	○	○	○
Kana-kanji conversion (enhanced version)* ¹⁰	KANA KANJI(JPN) (Enhanced Version)* ¹⁰	1274KB	○	○	○	○
Historical Trend Graph	Not required	-	○	○	○	○
Logging	Logging	740KB	○	○	○	○
Recipe	Recipe	100KB	○	○	○	○
Advanced Recipe	Advanced Recipe	1241KB	○	○	○	○
Object Script	Object Script	360KB	○	○	○	○
Ladder monitor* ²	Ladder monitor for MELSEC-A	523KB	○	○	○	○
	Ladder monitor for MELSEC-FX	592KB	○	○	○	○
	Ladder monitor for MELSEC-Q/I/QnA	1082KB	×	○	○	○
Ladder editor* ^{2 3 4}	GOT Platform Library	100KB	Not required			
	Ladder editor	5121KB	×	○	○	○
	GOT Function Expansion Library	4729KB	×	○	○	○
A list editor	List editor for MELSEC-A	1058KB	○	○	○	○
FX list editor	List editor for MELSEC-FX	1058KB	○	○	○	○
Intelligent module monitor* ¹	Intelligent module monitor	384KB	○	○	○	○
Network monitor	Network monitor	324KB	○	○	○	○
Q motion monitor	Q motion monitor	607KB	○	○	○	○
Servo amplifier monitor	Servo amplifier monitor	524KB	○	○	○	○
CNC monitor* ⁵	CNC monitor	588KB	○	○	○	○
SFC monitor* ^{1 6 7}	GOT Platform Library	100KB	Not required			
	SFC monitor	1373KB	×	○	○	○
	GOT Function Expansion Library	4729KB	×	○	○	○
Motion SFC monitor* ⁹	GOT Platform Library	100KB	Not required			
	Motion SFC monitor	2477KB	×	○	○	○
Gateway	Gateway (Server, Client)	100KB	○	○	○	○
	Gateway (Mail)	100KB	○	○	○	○
	Gateway (FTP)	64KB	○	○	○	○
MES interface* ⁸	MES Interface	3196KB	×	×	○	○

- *1 Inapplicable to the GT1555-Q and GT1550-Q.
- *2 Inapplicable to the GT1555-V, GT1555-Q, and GT1550-Q.
- *3 For using the ladder editor function, install all the OSs of [GOT Platform Library], [Ladder editor], and [GOT Function Expansion Library] on the GOT.
- *4 For using the ladder editor function, a capacity of 9950KB or more is required in the user area of the specified drive, for installing the extended function OS and option OS.
A total memory capacity of 21212KB is required for using the ladder editor function.
Therefore, to use the ladder editor function, set the OS boot drive to "A: Standard CF Card" and mount an option function board with 16MB or more memory on the GOT.
- *5 Applicable to the GT1595-X, GT1585V-S, GT1585-S, GT1575V-S, and GT1575-S only.
- *6 For using the SFC monitor function, install all the OSs of [GOT Platform Library], [SFC monitor], and [GOT Function Expansion Library] on the GOT.
- *7 For using the SFC monitor function, a capacity of 6202KB or more is required in the user area of the specified drive for installing the extended function OS and option OS.
A total memory capacity of 14393KB is required for using the SFC monitor function.
Therefore, the following settings are required depending on the GOT to be used.

GOT	Required setting
GT1575-VN, GT1572-VN, GT1562-VN	<ul style="list-style-type: none"> • Setting the OS boot drive to [A: Standard CF Card] • Memory expansion (Installing an option function board with add-on memory)
Other than the above	• Memory expansion (Installing an option function board with add-on memory)

For setting the OS boot drive, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

- *8 A capacity of 8218KB in the add-on memory (48MB) of the GT15-MESB48M is used for the MES interface function operation.
- *9 For using the motion SFC monitor function, a capacity of 2577KB or more is required in the user area of the specified drive, for installing the extended function OS and option OS.
A total memory capacity of 12622KB is required for using the motion SFC monitor function.
Therefore, to use the motion SFC monitor function, mount an option function board with 16MB or more memory on the GOT.

*10 This function is dedicated to Japanese version.

For GT11

Function name		Extended function OS/Option OS	OS capacity (User area)	Option function board
				GT11-50FNB
Extended function	Bar code	Bar code	0KB	Not required
	RFID	RFID		Not required
	System monitor	System monitor		Not required
Optional function	Recipe	Recipe	0KB	<input type="radio"/>
	A list editor ^{*1}	List editor for MELSEC-A		<input type="radio"/>
	FX list editor ^{*2}	List editor for MELSEC-FX		<input type="radio"/>

- *1 Not available for GT1155-QTBDQ, GT1155-QSBDQ and GT1150-QLBDQ.
- *2 Not available for GT1155-QTBDQ, GT1155-QTBDQ, GT1155-QSBDQ, GT1155-QSBDA, GT1150-QLBDQ and GT1150-QLBDA.

For GT10

Function name		Extended function OS/Option OS	OS capacity (User area)	Option function board
Optional function	Bar code	Not required	-	Not required
	Recipe	Not required		Not required
	FX list editor ^{*1}	Not required		Not required

- *1 Inapplicable to the GT1030 and GT1020.

(2) Selecting by user area size (drive space required for data transfer)

The GOT operates by expanding the OS or Project data stored in the built-in flash memory (ROM) to the user memory (RAM).

For the GT16, since a part of the data is compressed to be stored in the built-in flash memory (ROM), the data size becomes larger when it is expanded to the user memory (RAM).

Boot OS, Standard monitor OS, Communication driver, Extended function OS, Option OS, Special data, Project data and other data resides on the system area and user area of the drive specified by the GOT.

Regarding Boot OS, Standard monitor OS and first communication driver on the GT15 that reside on the system area of the C drive, it is not necessary to check the data capacity before installation.

However, when the GT16 or GT15 is used, for extended function OS, option function, communication driver (the second or later communication driver for the GT15) and project data that reside on the user area, data will not be transferred if there is insufficient space on the target drive.

When performing data transfer (OS installation, project data download), confirm the amount of space available on the specified drive's user area and the amount of data to be transferred.

User area size

Transfer destination	User area size		Remarks	
 GT16	Drive C (C: Built-in Flash memory)	GT1695M-X, GT1685M-S GT1675M-S, GT1675M-V GT1665M-S, GT1665M-V GT16 Handy	15MB	
	Drive A (A: Standard CF Card)	GT1675-VN, GT1672-VN, GT1662-VN	11MB	
	Drive B (B: Extended Memory)	Check the CF Card capacity.		
	Drive E (E: USB memory)	Check the USB memory capacity.		
 GT15	Drive C (C: Built-in Flash memory)	GT1595-X, GT1585V-S GT1585-S, GT1575V-S GT1575-V, GT1565-V GT1555-V, GT1555-Q, GT1550-Q	9MB	
	Drive A (A: Standard CF Card)	GT1575-VN, GT1572-VN GT1562-VN	5MB	
	Drive B (B: Extended Memory Card)	Check the memory size of CF card.		
	Drive C (C: Built-in Flash memory)	Check the memory size of CF card.		
 GT11	Drive C (C: Built-in Flash memory)	3MB	The project data size is up to 3MB.	
 GT10	Drive C (C: Built-in Flash memory)	GT105□	3MB	The project data size is a maximum of 3MB.
	Drive C (C: Built-in Flash memory)	GT104□	3MB	The project data size is a maximum of 3MB.
	Drive C (C: Built-in Flash memory)	GT1030	1.5MB	The project data size is up to 1.5MB.
	Drive C (C: Built-in Flash memory)	GT1020	512KB	The project data size is up to 512KB.

Each type of data is grouped and shown as **a**, **b**, **A**,

Apply the corresponding size when calculating the data size with the following expressions or flow charts.

Data type (GT16)	Data type (GT15)
a Extended function OS stored in the ROM	A Extended function OS
b Option OS stored in the ROM	B Option OS
A Extended function OS expanded to the RAM	C Second or later communication driver
B Option OS expanded to the RAM	D Special data
C Communication driver	E Project
D Special data	F Buffering area
E Project	
F Buffering area	

a, **A** Data size of extended functions

For the data size of the extended function OS, refer to section 3.2 (1).

b, **B** Data size of optional functions

For the data size of the option OS, refer to section 3.2 (1).

C Communication driver data size

For GT16

	User area capacity
Bus (Q)	180KB
A/QnA/L/Q CPU, LJ71C24, QJ71C24	180KB
MELSEC-FX	180KB
MELSECNET/H	200KB
CC-Link IE Controller	200KB
JTEKT TOYOPUC-PC	160KB
Ethernet (YASKAWA)	160KB
Computer	230KB
Ethernet (MICROCOMPUTER)	230KB
Communication driver other than the above	150KB

For GT15

Communication drivers use 150 KB each.

F Buffering area size (data size)

Refer to the following manual for the data size of the buffering area size.

 GT Designer3 Version1 Screen Design Manual (Functions)

(a) Newly transferring data to the GOT

Check whether the following expression is satisfied or not.

Refer to the following section for the project data size

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

- For GT16

The GT16 can store the project data into Drive C or Drive A (A: Standard CF Card).

$$\boxed{\text{User area space (ROM Size)}} > \boxed{\text{Project E}} + \boxed{\text{Extended function OS data size } \textcircled{a}^{\ast 1}} + \boxed{\text{Option OS data size } \textcircled{b}^{\ast 1\ast 2}}$$
$$+ \boxed{\text{Communication driver data size } \textcircled{c}} + \boxed{\text{Special Data } \textcircled{d}}$$

*1 Calculate the sizes of Extended function OS and Option OS with the values **a** and **b** which are the sizes when they are stored in the built-in flash memory (ROM).

- For GT15

The GT15 can store the project data into Drive C or Drive A (A: Standard CF Card).

$$\boxed{\text{User area space}} > \boxed{\text{Project E}} + \boxed{\text{Extended function OS data size } \textcircled{A}} + \boxed{\text{Option OS data size } \textcircled{B}^{\ast 2}}$$
$$+ \boxed{\text{Second or later Communication driver data size } \textcircled{c}} + \boxed{\text{Special Data } \textcircled{d}}$$

- For GT11 and GT10

The GT11, GT10 can store the project data into Drive C.

$$\boxed{\text{User area space}} > \boxed{\text{Project}}$$

*2 When the GOT project data created on PX Developer (Ver.1.15 or later) is used, logging function and object script function are required.

Refer to the PX Developer User's Manual for details.

Point

(1) When free space of transfer destination drive is sufficient but the insufficient space message appears

Select [Write after deleting all contents in the project folder] to write all project data.

When it is necessary to back up the project data, read it to a personal computer, CF card, or memory card before writing the project data.



(2) Memory for storage (ROM) and memory for operation (RAM)

For GT16

- The GT16 operates by expanding the OS or project data stored in the memory for storage (ROM) to the memory for operation (RAM).

The capacity of the memory for storage (ROM) and the memory for operation (RAM) differs according to the GOT.

GOT	Memory	Capacity
GT1695M-X, GT1685M-S, GT1675M-S, GT1675M-V, GT1665M-S, GT1665M-V, GT16 Handy	Memory for storage (ROM) (Built-in flash memory, included as standard)	15MB
	Memory for operation (RAM) (User memory, included as standard)	57MB
GT1675-VN, GT1672-VN, GT1662-VN	Memory for storage (ROM) (Built-in flash memory, included as standard)	11MB
	Memory for operation (RAM) (User memory, included as standard)	53MB

If the OS or project data exceeds the capacity of the memory for storage (ROM), the capacity of the ROM can be extended by using a CF card.

Example) For GT1675M-V



The built-in flash memory corresponds to "Drive C", and the CF card corresponds to "Drive A (standard)" or "Drive B (extended)".

- The memory for operation (RAM) cannot be extended.

If the amount of data expanded to the memory for operation (RAM) exceeds the above capacity, data must be resized by reducing the project data or deleting the unnecessary OS.

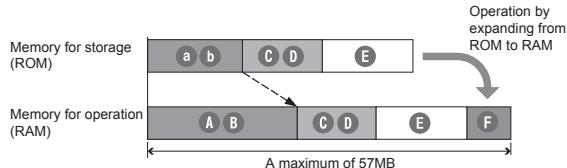
For the extended function OS and option OS, the compressed data **a** and **b** are stored in the memory for storage (ROM) and the data size becomes larger as shown by **A** and **B** when they are expanded to the memory for operation (RAM).

The buffering area **F** is an area for storing the resource data such as logging or advanced alarm and uses the memory for operation (RAM). The data size varies depending of the setting.

The stored resource data is stored to the specified storage destination (Drive A or Drive B) when saving to a file is specified by GT Designer3. (The memory for storage (ROM) is not used.)

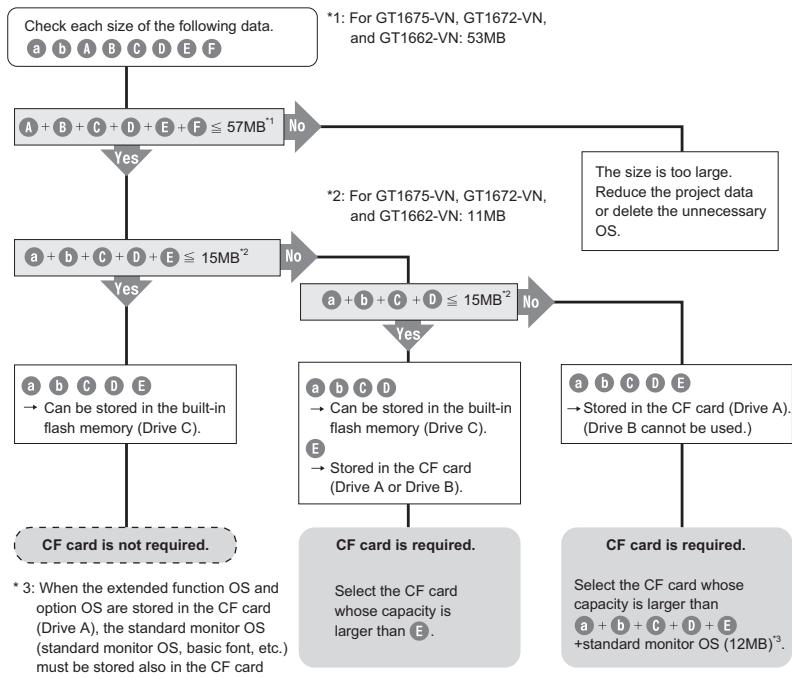
If the amount of data expanded to the memory for operation (RAM) exceeds the above capacity, data must be resized by deleting the project data or unnecessary OS.

Example) For GT1675M-V



Data type	
a	Extended function OS stored in the ROM
b	Option OS stored in the ROM
A	Extended function OS expanded to the RAM
B	Option OS expanded to the RAM
C	Communication driver
D	Special data
E	Project
F	Buffering area

- Whether the CF card is required or not and the required capacity of CF card vary depending on the data size.
Select whether to use the CF card and its capacity using the following flow chart.





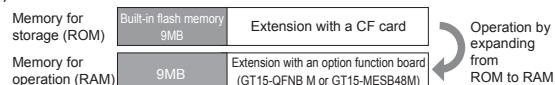
For GT15

- The GT15 operates by expanding the OS or project data stored in the memory for storage (ROM) to the memory for operation (RAM). The capacities of memory for storage (ROM) and memory for operation (RAM) varies depending on the GOT.

GOT	Memory	Capacity	Max. capacity (Option function board with add-on memory mounted)
GT1595-X, GT1585V-S, GT1585-S, GT1575V-S, GT1575-V, GT1565-V, GT1555-V, GT1555-Q, GT1550-Q	Memory for storage (ROM)(Built-in flash memory, included as standard)	9MB	-
	Memory for operation (RAM)(Included as standard)	9MB	57MB (When using the GT15-MESB48M)
GT1575-VN, GT1572-VN, GT1562-VN	Memory for storage (ROM)(Built-in flash memory, included as standard)	5MB	-
	Memory for operation (RAM)(Included as standard)	5MB	53MB (When using the GT15-MESB48M)

If the OS or project data exceeds the maximum capacity of the memory for storage (ROM), the capacity of the ROM can be extended by using a CF card and an option function board with add-on memory (GT15-QFNB□M or GT15-MESB48M).

Example) For GT1575-V

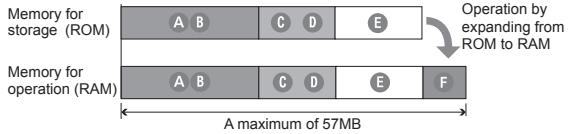


The built-in flash memory corresponds to "Drive C", and the CF card corresponds to "Drive A (standard)" or "Drive B (extended)".

- The memory for operation (RAM) can be extended up to the maximum capacity above with the option function board.
If the amount of data expanded to the memory for operation (RAM) exceeds the maximum amount above, data must be resized by deleting the project data or unnecessary OS.

The buffering area is an area for storing the resource data such as logging or advanced alarm and uses the memory for operation (RAM). The data size varies depending of the setting. The stored resource data is stored to the specified storage destination (Drive A or Drive B) when saving to a file is specified by GT Designer3. (The memory for storage (ROM) is not used.)

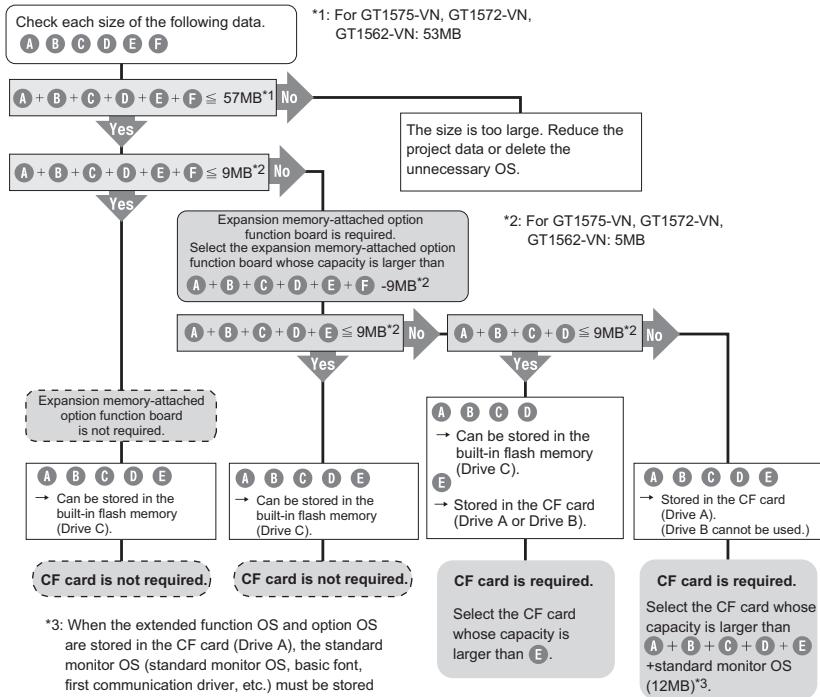
Example) For GT1575-V



Data type

- A** Extended function OS
- B** Option OS
- C** Second or later communication driver
- D** Special data
- E** Project
- F** Buffering area

- Whether the expansion memory-attached option function board or CF card is required or not and the required capacity of expansion memory-attached option function board or CF card vary depending on the data size.
Select whether to use the expansion memory-attached option function board or CF card and their capacity using the following flow chart.





Limit to write OS

(1) When the drive of the Standard OS in the Boot Drive is C drive

Even when the option function board with add-on memory is mounted to the GOT, the total volume of the Communication driver (the second or later one for the GT15), Extended function OS, and Option OS cannot exceed the user area capacity in the C drive.

(2) When the drive of the Standard OS in the Boot Drive is C drive

For GT16: Since the memory for operation (RAM) is included as standard, the total volume of the Communication driver, Extended function OS, Option OS, project data, special data, and etc. can be up to the max. total memory capacity.

Max. RAM capacity

Transfer destination	Target models	Max. capacity
 GT16	GT1695M-X, GT1685M-S, GT1675M-S, GT1675M-V, GT1665M-S, GT1665M-V, GT16 Handy	57MB
	GT1675-VN, GT1672-VN, GT1662-VN	53MB

Refer to the following manual for details about the capacities of the memory for operation (RAM).

 [GT16 User's Manual \(Hardware\)](#)

For GT15:

When the option function board with add-on memory is mounted to the GOT, the total volume of the second or later Communication driver, Extended function OS, Option OS, project data, special data, and etc. can be up to the max. total capacity when the option function board with add-on memory is used.

Max. total capacity when option function board with add-on memory is used.

Transfer destination	Target model	Max. total capacity
 GT15	GT1595-X, GT1585V-S, GT1585-S, GT1575V-S GT1575-V, GT1565-V, GT1555-V, GT1555-Q, GT1550-Q	57MB
	GT1575-VN, GT1572-VN, GT1562-VN	53MB

Refer to the following manual for details about the types and capacities of the option function boards with add-on memory.

 [GT15 User's Manual](#)

● Compatibility with existing product

Project data

(1) GT Designer/GT Designer2 → GT Works3 compatibility*

Project data created in GT Designer2 can be used in GT Works3. Project data created in GT Designer can be used in GT Works3 after the data is converted by GT Designer2/GT Designer2 Classic.

(2) GOT900 series → GOT1000 series compatibility *

- Using data from the GOT-A900 series

Project data for GOT-A900 series can be used in GOT1000 series. For the details, see Technical Bulletin No.GOT-A-0009 "Precautions when Replacing GOT-A900 Series with GOT1000 Series".

- Using data from the GOT-F900 series

Project data for GOT-F900 series can be used in GOT1000 series. For the details, see "Replacement Guidance (for GOT1000 Series) - From GOT-F900/A950 Handy Series to GOT1000 Series" (JY997D39301).

*: Some data and functions cannot be used on the GOT1000 series.

Cable

- For details on using the GOT900 series bus connection cables, RS-422 cables and RS-232 cables with the GOT1000 series, see Technical Bulletin No.GOT-A-0009.
- The bus connection cables, RS-422 cables and RS-232 cables for the GOT1000 series cannot be used for the GOT900 series.

Panel cutting dimensions

(1) GOT900 series → GOT1000 series compatibility

- The A985GOT(-V) and GT1685/GT1585, A975/970GOT(-B) and GT167□/GT157□, F940GOT and GT155□/GT115□/GT105□ have the same panel dimensions, respectively. Therefore, it is not necessary to change the mounting hole size.
- Although the A95□ differs in panel cut dimensions from the GT155□, GT115□-Q□BDQ and GT115□-Q□BDA, the former model can be replaced with any of the latter ones without changing the mounting hole size.

● When using multi-channel function with GT16 or GT15

The multi-channel function monitors multiple FA devices with mounting multiple communication units on a GOT or using the standard interface.

Available combinations of connection types

(1) GT16

For GT16, the combinations of the bus or network connection, the Ethernet connection, and the serial connection are available as shown in the following table.

	Connection type	Reference
Bus / network connection	Bus connection	4.1.3 Details of bus connection
	MELSECNET/H connection (PLC to PLC network)	4.1.6 MELSECNET/H connection
	MELSECNET/10 connection (PLC to PLC network)	4.1.7 MELSECNET/10 connection
	CC-Link IE controller network connection	4.1.8 CC-Link IE controller network connection
	CC-Link connection (intelligent device station)	4.1.9 CC-Link connection (intelligent device station)
	CNC connection (MELSECNET/10 connection (PLC to PLC network))	4.2.4 CNC (MELDAS C6/C64) connection (MELSECNET/10 connection)
Ethernet connection	CNC connection (CC-Link connection (intelligent device station))	4.2.4 CNC (MELDAS C6/C64) connection (CC-Link (intelligent device station) connection)
	Ethernet connection	4.1.11 Ethernet connection
	Robot controller connection	4.2.3 Robot controller connection
	CNC connection (Ethernet connection)	4.2.4 CNC (MELDAS C6/C64) connection (Ethernet connection)
	Third party PLC connection (Ethernet connection)	Third party programmable controller <ul style="list-style-type: none"> • 4.3.2 OMRON programmable controller • 4.3.13 YASKAWA programmable controller • 4.3.14 YOKOGAWA programmable controller • 4.3.15 ALLEN-BRADLEY programmable controller
	Microcomputer connection (Ethernet)	Microcomputer connection <ul style="list-style-type: none"> • 4.5 Microcomputer connection
Serial connection	MODBUS [®] /TCP connection	MODBUS [®] connection <ul style="list-style-type: none"> • 4.6.2 MODBUS(R)/TCP connection
	Direct CPU connection	4.1.4 Direct CPU connection
	Computer link connection	4.1.5 Computer link connection
	CC-Link connection (via G4)	4.1.10 CC-Link connection (via G4)
	Inverter connection	4.2.1 Inverter connection
	Servo amplifier connection	4.2.2 Servo amplifier connection
	CNC connection (serial connection)	4.2.4 CNC (MELDAS C6/C64) connection (Direct CPU connection)
	GOT multi-drop connection	4.2.5 GOT Multi-drop connection
	Third party PLC connection (serial connection)	Third party programmable controller <ul style="list-style-type: none"> • 4.3.2 OMRON programmable controller • 4.3.3 KEYENCE programmable controller • 4.3.4 KOYO EI programmable controller • 4.3.5 SHARP programmable controller • 4.3.6 JTEKT programmable controller • 4.3.7 TOSHIBA programmable controller • 4.3.8 TOSHIBA MACHINE programmable controller • 4.3.9 HITACHI IES programmable controller • 4.3.10 HITACHI programmable controller • 4.3.11 FUJI FA programmable controller • 4.3.12 PANASONIC EW programmable controller • 4.3.13 YASKAWA programmable controller • 4.3.14 YOKOGAWA programmable controller • 4.3.15 ALLEN-BRADLEY programmable controller • 4.3.16 GE FANUC programmable controller • 4.3.17 LS INDUSTRIAL SYSTEMS programmable controller • 4.3.19 SIEMENS programmable controller
	Third party safety controller connection	Third party programmable controller <ul style="list-style-type: none"> • 4.3.18 SICK safety controller
	Third party servo amplifier connection	Other third party devices <ul style="list-style-type: none"> • 4.4.2 Panasonic servo amplifier
	Third party robot controller connection	Other third party devices <ul style="list-style-type: none"> • 4.4.3 AIA robot controller

(Continued to next page)

Connection type		Reference
Serial connection	Third party temperature controller connection	<p>Third party temperature controller</p> <ul style="list-style-type: none"> • 4.7.2 OMRON temperature controller • 4.7.3 SHINKO indicating controller • 4.7.4 CHINO controller • 4.7.5 FUJI SYS temperature controller • 4.7.6 YAMATAKE temperature controller • 4.7.7 YOKOGAWA temperature controller • 4.7.8 RKC temperature controller
	Microcomputer connection (Serial)	<p>Microcomputer connection</p> <ul style="list-style-type: none"> • 4.5 Microcomputer connection
	MODBUS ^① /RTU connection	<p>MODBUS(R) connection</p> <ul style="list-style-type: none"> • 4.6.1 MODBUS(R)/RTU connection

The following shows the applicable combinations of connection types, the number of channels, and restricted functions.

○ : Allowed △ : Restricted

Item	Allowable combination of connection types	GOT to be used		Functions that are restricted by the connection type ^{*1}	
		GT1695 GT1685 GT1675 GT1672 GT1665 GT1662	GT16 Handy	FA transparent function	
				RS-232	USB
(a)	<ul style="list-style-type: none"> • Bus / network connection: 1 channel • Serial connection: 1 to 3 channels 	Max. 4 channels	-	△ ^{*2}	○
(b)	<ul style="list-style-type: none"> • Bus / network connection: 1 channel • Ethernet connection: 1 to 3 channels 	Max. 4 channels	-	△ ^{*2}	○
(c)	<ul style="list-style-type: none"> • Ethernet connection: 1 to 3 channels • Serial connection: 1 to 3 channels 	Max. 4 channels	Max. 4 channels	△ ^{*2}	○
(d)	<ul style="list-style-type: none"> • Bus / network connection: 1 channel • Ethernet connection: 1 to 2 channels • Serial connection: 1 to 2 channels 	Max. 4 channels	-	△ ^{*2}	○
(e)	<ul style="list-style-type: none"> • Serial connection: 4 channels 	Max. 4 channels	-	△ ^{*2}	○
(f)	<ul style="list-style-type: none"> • Ethernet connection: 4 channels 	Max. 4 channels	Max. 4 channels	△ ^{*2}	○

*1 When the functions below are used, the connectable number of channels may be restricted depending on the combination of the functions to be used.

- | | |
|---|---|
| • Bar code function | • RFID function |
| • Remote personal computer operation function | • Video display function |
| • Multimedia function | • Operation panel function |
| • RGB display function | • Report function |
| • Sound output function | • Functions with the CF card unit or CF card extension unit |

The video/RGB display, the RGB output, and the multimedia function cannot be used together.

The CF card unit and the CF card extension unit cannot be used at the same time.

For details, refer to the following.

 Mounting units on the GOT side interface <GT16/GT15>

*2 For the FA transparent function via the RS-232 connection, the RS-232 interface built in the GOT is available only.

When the RS-232 interface built in the GOT is already used, the FA transparent function is not available.

(2) GT15

For GT15, the combinations of the bus, network, or Ethernet connection and the serial connection are available as shown in the following table.

	Connection type	Reference
Bus / network / Ethernet connection	Bus connection	4.1.3 Details of bus connection
	Ethernet connection	4.1.11 Ethernet connection
	MELSECNET/H connection (PLC to PLC network)	4.1.6 MELSECNET/H connection
	MELSECNET/10 connection (PLC to PLC network)	4.1.7 MELSECNET/10 connection
	CC-Link IE controller network connection	4.1.8 CC-Link IE controller network connection
	CC-Link connection (intelligent device station)	4.1.9 CC-Link connection (intelligent device station)
	Robot controller connection	4.2.3 Robot controller connection
	CNC connection (MELSECNET/10 connection (PLC to PLC network))	4.2.4 CNC (MELDAS C6/C64) connection (MELSECNET/10 connection)
	CNC connection (CC-Link connection (intelligent device station))	4.2.4 CNC (MELDAS C6/C64) connection (CC-Link (intelligent device station) connection)
	CNC connection (Ethernet connection)	4.2.4 CNC (MELDAS C6/C64) connection (Ethernet connection)
	Third party PLC connection (Ethernet connection)	Third party programmable controller • 4.3.2 OMRON programmable controller • 4.3.13 YASKAWA programmable controller • 4.3.14 YOKOGAWA programmable controller • 4.3.15 ALLEN-BRADLEY programmable controller
	Microcomputer connection (Ethernet)	Microcomputer connection • 4.5 Microcomputer connection
	MODBUS [®] /TCP connection	MODBUS [®] connection • 4.6.2 MODBUS(R)/TCP connection
	Direct CPU connection	4.1.4 Direct CPU connection
Serial connection	Computer link connection	4.1.5 Computer link connection
	CC-Link connection (via G4)	4.1.10 CC-Link connection (via G4)
	Inverter connection	4.2.1 Inverter connection
	Servo amplifier connection	4.2.2 Servo amplifier connection
	CNC connection (serial connection)	4.2.4 CNC (MELDAS C6/C64) connection (Direct CPU connection)
	GOT multi-drop connection	4.2.5 GOT Multi-drop connection
	Third party PLC connection	Third party programmable controller • 4.3.2 OMRON programmable controller • 4.3.3 KEYENCE programmable controller • 4.3.4 KOYO EI programmable controller • 4.3.5 SHARP programmable controller • 4.3.6 ITEKT programmable controller • 4.3.7 TOSHIBA programmable controller • 4.3.8 TOSHIBA MACHINE programmable controller • 4.3.9 HITACHI IES programmable controller • 4.3.10 HITACHI programmable controller • 4.3.11 FUJI FA programmable controller • 4.3.12 PANASONIC EW programmable controller • 4.3.13 YASKAWA programmable controller • 4.3.14 YOKOGAWA programmable controller • 4.3.15 ALLEN-BRADLEY programmable controller • 4.3.16 GE FANUC programmable controller • 4.3.17 LS INDUSTRIAL SYSTEMS programmable controller • 4.3.19 SIEMENS programmable controller
	Third party safety controller connection	Third party programmable controller • 4.3.18 SICK safety controller
	Third party servo amplifier connection	Other third party controllers • 4.4.2 Panasonic servo amplifier
	Third party robot controller connection	Other third party controllers • 4.4.3 IAI robot controller

(Continued to next page)

	Connection type	Reference
Serial connection	Third party temperature controller connection	<ul style="list-style-type: none"> Third party temperature controller • 4.7.2 OMRON temperature controller • 4.7.3 SHINKO indicating controller • 4.7.4 CHINO controller • 4.7.5 FUJI SYS temperature controller • 4.7.6 YAMATAKE temperature controller • 4.7.7 YOKOGAWA temperature controller • 4.7.8 RKC temperature controller
	Microcomputer connection (Serial)	<ul style="list-style-type: none"> Microcomputer connection • 4.5 Microcomputer connection
	MODBUS ^① /RTU connection	<ul style="list-style-type: none"> MODBUS^① connection • 4.6.1 MODBUS(R)/RTU connection

The number of channels and the functions that can be used differ depending on the GOT to be used. The table below shows the allowable combinations of connection types, the number of channels and restricted functions.

○: Allowed △: Restricted

Item	Allowable combination of connection types	GOT to be used		Functions that are restricted by the connection type ^{*1*2}	
		GT1595 GT1585 GT157□ GT156□	GT155□	FA transparent function	
				RS-232	USB
(a)	• Bus / network / Ethernet connection: 1 channel • Serial connection: 1 to 3 channels	Max. 4 channels	Max. 2 channels	△ ^{*3}	○
(b)	• Serial connection: 4 channels	Max. 4 channels	Max. 2 channels	△ ^{*3}	○

*1 When the functions below are used, the connectable number of channels may be restricted depending on the combination of the functions to be used.

- Bar code function
 - RFID function
 - Remote personal computer operation function
 - Video display function
 - Operation panel function
 - External I/O function
 - RGB display function
 - Report function
 - Hard copy(For printer output)
 - Sound output
 - Functions with the CF card unit or CF card extension unit

Video/RGB display and RGB output cannot be used at the same time.

The CF card unit and the CF card extension unit cannot be used at the same time.

For details, refer to the following.

 Mounting units on the GOT side interface <GT16/GT1

*2 When any of the connection methods below is used, Ethernet connection cannot be used although Ethernet download, gateway function and MES interface function can be used.

- Bus connection • MELSECNET/H connection • MELSECNET/10 connection
 - CC-Link IE controller network connection • CC-Link connection
 - MODBUS[®] /TCP connection

*3 For the FA transparent function via the RS-232 connection, the RS-232 interface built in the GOT is available only.

When the RS-232 interface built in the GOT is already used, the FA transparent function is not available.

Number of connectable channels/mountable units/mountable stages

(1) Number of connectable channels

The number of connectable channels varies depending on the GOT model. Refer to the following table.

(2) Number of mountable units/and mounting stages

When the multi-channel function is used, add interfaces on the GOT side using any of the following methods.

(a) Stack communication units on the extension unit interface.

(b) Mount communication units on the extension unit interface to use the unit in combination with the standard interface. The number of mountable units and mounting stages vary depending on the GOT model.

*: The performance of GOT may be affected depending on the configuration of connected devices.

	GT1695 GT1685 GT167□ GT166□	GT1595 GT1585 GT157□ GT156□	GT155□	GT16 Handy	Description
(1)	Max. number of connectable channels	4		2	<p>For GT16: The number of communication ports (communication units and interfaces) for use for communication on the GOT.</p> <ul style="list-style-type: none"> Only one channel per one GOT can be connected in the bus connection and network connection. Ethernet connection is available for up to four channels. When the Ethernet interface built into the GOT is used for functions other than communication with the connected device¹, the interface is not included in the number of connected channels. The number of channels does not include the interface used for connection with external devices². <p> Refer to "Calculation of current consumed by units <GT16/GT15>".</p>
	Max.number of mountable units	5		3	<p>For GT15: The number of communication ports (communication units and interfaces) for use for communication on the GOT.</p> <ul style="list-style-type: none"> Only one channel per one GOT can be connected in bus connection and network connection. When the Ethernet communication unit is used for functions other than communication with the connected device¹, the unit is not included in the number of connected channels. The number of channels does not include the interface used for connection with external devices². <p> Refer to "Calculation of current consumed by units <GT16/GT15>".</p>
(2)	Max. number of mounting stages	3 (2 slots)	3 (1 slot)	Not mountable	<p>The number of units that can be mounted on extension unit interfaces 1 and 2 of the GOT.</p> <ul style="list-style-type: none"> More than one serial communication unit³ of the same model can be mounted. Optional units are included in the number of units. RS-422 conversion units are not included in the number of units. It is necessary to calculate the total current consumed by the units to be mounted. <p> Refer to "Calculation of current consumed by units <GT16/GT15>".</p>

¹: Ethernet download function, gateway function and MES interface function

²: Barcode reader, RFID controller, personal computer (remote personal computer function, FA transparent function, OS installation, and project data download), and printer (serial)

³: GT15-RS2-9P, GT15-RS4-9S and GT15-RS4-TE

GT15-OBUS2, GT15-ABUS2, GT15-J71P23-25, GT15-J71BR13, GT15-J61BT13, GT15-J71GP23-SX

GT16M-V4, GT15V-75V4, GT16M-R2, GT15V-75R1, GT16M-V4R1, GT15V-75V4R1, GT16M-ROUT, GT15V-75ROUT, GT16M-MMR

GT15-7SQBUSL, GT15-75OBUS2L, GT15-75ABUS2L, GT15-75J71P23-Z, GT15-75J71BR13-Z, GT15-75J61BT13-Z

Communication driver

A communication driver must be installed for each of the connection configurations.

For the GT16, the communication driver is installed in the user area.

For the GT15, communication drivers for the second and subsequent channels will be installed in the user area.

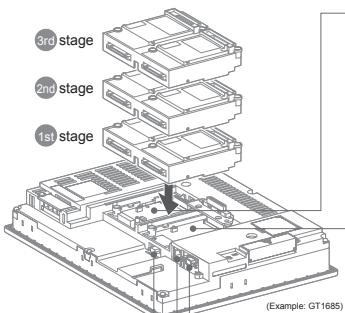
Option function board

Not necessary when using the GT16.

The GT15 requires an optional function board.

Use the optional function board GT15-QFNB(M) or GT15-MESB48M. The GT15-FNB cannot be used.

●Mounting units on the GOT side interface <GT16/GT15>



Extension unit interface 1 (On GT16 Handy, no units can be mounted because it does not have extension unit interface 1 or 2.)

Extension unit interface 2 (GT155□ has the extension unit interface 1 only)

Up to 3 communication units and optional units can be mounted on each extension unit interface.

Mount a unit that occupies two slots on the first stage.

However, when any of the following units are used, mount the unit on the first stage, then mount other units on the second and subsequent stages.

For GT16 Only one of these units can be mounted on the GT16 except GT16□-VNBD.)

- GT16-V4, GT16-R2, GT16-V4R1, GT16-ROUT, GT16-MM

For GT15 (Only one of these units can be mounted on the GT1585V and GT1575V)

- GT15-V7V4, GT15-V7R1, GT15-V7V4R1, GT15-V7R0UT

The following units must not be stacked on other units. Mount any of them on the first stage.

- GT15-75OBUSL, GT15-75OBUS2L, GT15-75ABUSL, GT15-75ABUS2L
- GT15-75J71LP23-Z, GT15-75J71BR13-Z, GT15-75J61B1T13-Z
(GT16 or GT155□ cannot be used.)

Instructions for mounting and removing the GT15-CFCD

- An extension unit cannot be mounted on a CF card unit.

When extension units are mounted, mount the CF card unit on the last stage.

- When mounting a CF card unit on the extension interface 1 (left), ensure that the number of extension units mounted on the extension interface 2 (right) is smaller than the number on the extension interface 1 (left). Otherwise, the CF card cannot be inserted or removed.

- Remove the CF card unit in the designated direction (ΔPULL) to prevent damage to the connector.

Unit occupying two slots

Ex.: GT15-QBUS2



2 slots (1st stage)
are occupied.

Standard interface (built-in RS-232 interface)

The interface can establish a serial connection with connected devices and peripheral devices, such as a barcode reader.

Standard interface (built-in Ethernet interface) (GT16 only)

The interface can establish a connection with connected devices via Ethernet.

Standard interface (built-in RS-422/485 interface) (GT16 only)

The interface can establish a serial connection with connected devices.

●Calculation of current consumed by units <GT16/15>

When using multiple units, a barcode reader, and a RFID controller, the total current consumed by the units, barcode reader and RFID controller must be less than the current that can be supplied by the GOT. Design the system using the following values so that the total current is within the range of the current supply capacity of the GOT.

(1) Current that can be supplied by the GOT

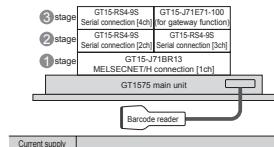
GOT model	Current supply capacity (A)
GT1695	2.4
GT1685	2.4
GT1675□	2.4
GT1665□	2.4
GT1595	2.13
GT1585 (incl. GT1585V)	1.74
GT1575□ (incl. GT1575V)	2.2
GT156□	2.2
GT155□	1.3

(2) Current used by units, barcode reader and RFID controller

Unit model	Consumed current (A)	Unit model	Consumed current (A)
GT15-QBUS		Barcode reader	*2
GT15-QBUS2		GT16M-V4	0.12*1
GT15-75OBUSL	0.275*1	GT15V-7V4	0.2*1
GT15-75OBUS2L		GT16M-R2	0.1
GT15-ABUS2	0.12	GT15V-75R1	0.2*1
GT15-75ABUSL		GT16MV-V4R1	0.12*1
GT15-75ABUS2L		GT15V-75V4R1	0.2*1
GT15-RS2-9P	0.29	GT16M-ROUT	0.11*1
GT15-RS4-9S	0.33	GT15V-75ROUT	0.11
GT15-RS4-TE	0.3	GT16M-MM	0.27*1
GT15-RS2T4-9P	0.098	GT15-CFCD	0.07
GT15-J71E71-100	0.224	GT15-CFEX-C08SET	0.15
GT15-J71GP23-SX	1.07	GT15-SOUT	0.08
GT15-J71LP23-25	0.56	GT15-DIO	0.1
GT15-J71BR13	0.77	GT15-DIOR	0.1
GT15-J61B1T13	0.56	RFID controller	*2

(3) Calculation example

When GT15-J71BR13, GT15-RS4-9S (3 units), GT15-J71E71-100 (for gateway function) and barcode reader (0.12A) are connected to a GT1575V:



Current supply capacity of GOT (A)	Total current to be consumed (A)
2.2	0.77 + 0.33 + 0.33 + 0.33 + 0.224 + 0.12 = 2.104

Since the total current is within the current supply capacity of the GOT, the units can be used.

License key for GT SoftGOT1000

(1) License key

A license key is required for using GT SoftGOT1000.

The license key includes the following two types.

Model	Description
GT15-SGTKEY-U	For connecting to USB port
GT15-SGTKEY-P *1	For connecting to parallel port

*1: Not available with the PC CPU module that has no parallel port.

Use the GT15-SGTKEY-U.

(a) How to use license key

Be sure to connect a license key to the target device before monitoring with GT SoftGOT1000.

When monitoring is started without the license key, GT SoftGOT1000 automatically ends in approximately two hours.

Do not remove the license key during monitoring.

When the license key is removed during monitoring, GT SoftGOT1000 automatically ends.

(b) Before connecting license key

The OS recognizes a license key as a controller.

Therefore, install the system driver (device driver) as in the case of the other controllers.

The license key is accessed via the system driver. When the system driver is not installed, the license key cannot be accessed.

(c) Applicable target of license keys

The GT15-SGTKEY-U and GT15-SGTKEY-P are dedicated to GT SoftGOT1000.

The license keys are not applicable to GT SoftGOT2.

(2) When connecting GT15-SGTKEY-U

(a) Precautions for installing or uninstalling system driver

Remove the GT15-SGTKEY-U before installing or uninstalling the system driver.

When installing the system driver with the GT15-SGTKEY-U connected, the installation of USB may fails.

When the installation fails, uninstall the system driver with the GT15-SGTKEY-U removed, and then install the system driver again.

(3) When connecting GT15-SGTKEY-P

(a) Available port for GT15-SGTKEY-P

The GT15-SGTKEY-P can be used with the parallel port mounted on a personal computer by default.

The GT15-SGTKEY-P is not applicable to parallel ports extended or connected via a converter.

(b) When using GT15-SGTKEY-P with other devices

The following devices cannot be used at the same port as that for the GT15-SGTKEY-P.

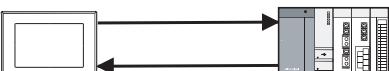
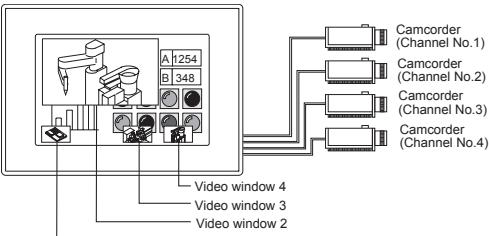
- SCSI interface for parallel port
- Floppy disk drive, hard disk drive, CD-ROM or ZIP drive connected to parallel port
- Devices with data transfer methods that the specifications are out of the standard specification for the communication method via a parallel port (Interlink network, Centronics printer interface, and others)

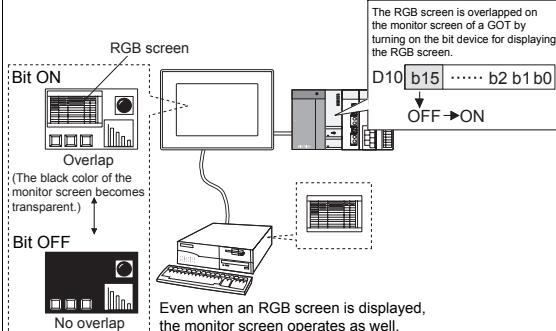
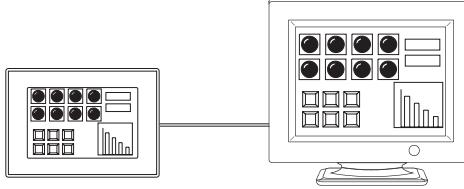
(c) Precautions for connecting GT15-SGTKEY-P

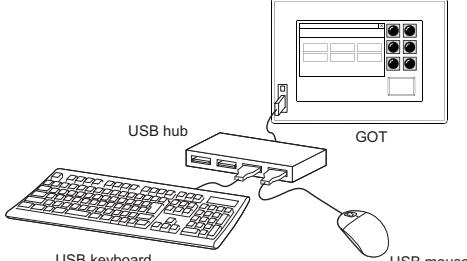
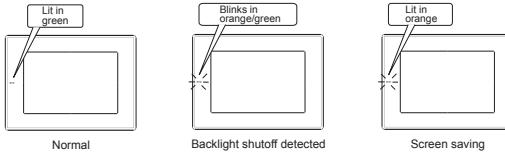
Connect the GT15-SGTKEY-P between the printer switching device and a personal computer.

3.3 Overview of Each Function

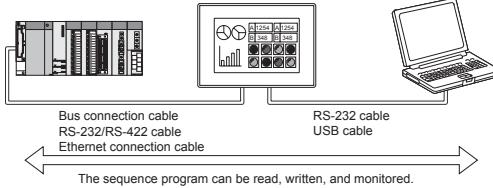
●Hardware specifications

Function	Overview	Reference
Clock function 	<p>Manages the clock data of a GOT. The clock data can be selected as a standard for adjusting the time. (For GT1020, only the adjust function is available.)</p> <p style="text-align: center;"> Broadcast Adjusts the time of the programmable </p>  <p style="text-align: center;"> Adjust Adjusts the time of the GOT clock data to the clock </p>	 Chapter 2 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]  Chapter 2 in GT16 User's Manual (Basic Utility) [SH-080929ENG]  Chapter 12 in GT15 User's Manual [SH-080528ENG]  Chapter 12 in GT11 User's Manual [JY997D17501]  Chapter 12 in GT10 User's Manual [JY997D24701]  Chapter 10 in GT16 Handy GOT User's Manual [JY997D41201, JY997D41202]  Chapter 11 in GT11 Handy GOT User's Manual [JY997D20101, JY997D20102]
Video input 	<p>Displays the image taken with a camcorder on a video window. The video window operates independently of other screens. While opening the video window, base screens can be switched.</p>  <p style="text-align: center;"> Video window 4 Video window 3 Video window 2 Video window 1 </p> <p>* Cannot be used for GT16 Handy.</p>	 Chapter 32 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 11 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]

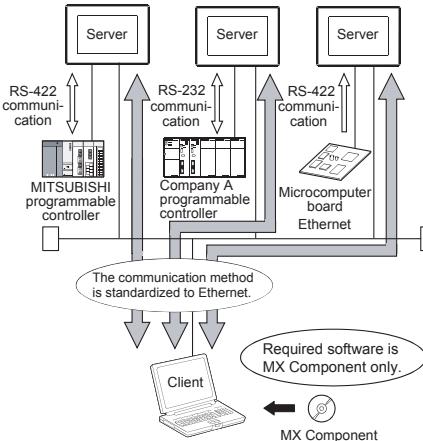
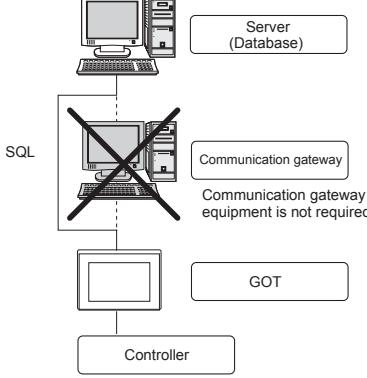
Function	Overview	Reference
RGB input/ RGB output 	<p>Displays a screen of a personal computer on the GOT and outputs a GOT screen to a commercially-available display.</p> <p>The RGB screen can be used with XGA (1024 × 768 dots), SVGA (800 × 600 dots), or VGA (640 × 480 dots).</p> <p>(XGA (1024 × 768 dots) can be selected only for the GT1695M-X.)</p> <p>The RGB screen is displayed on the monitor screen of a GOT by the ON/OFF status of the device (bit device in the word device).</p> <ul style="list-style-type: none"> RGB input  <p>The RGB screen is overlapped on the monitor screen of a GOT by turning on the bit device for displaying the RGB screen.</p> <p>D10[b15] b2 b1 b0</p> <p>OFF → ON</p> <p>Even when an RGB screen is displayed, the monitor screen operates as well.</p> <ul style="list-style-type: none"> RGB output  <p>When executing the RGB output, set the RGB output in the communication settings. * Cannot be used for GT16 Handy.</p>	 Chapter 35 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 11 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]

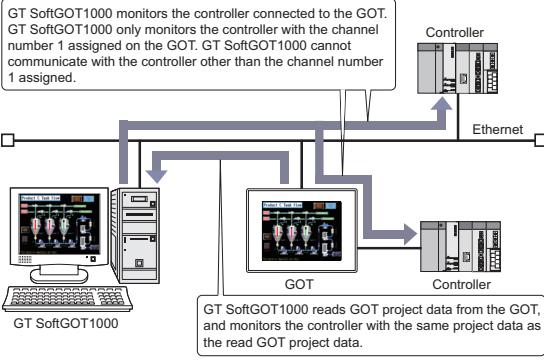
Function	Overview	Reference
USB mouse/ keyboard connection 	<p>GOT operation by connecting a USB mouse or USB keyboard to the GOT is available.</p> <p>This function is useful when operating small touch switches or entering a large amount of characters.</p> <p>With the remote personal computer operation (Ethernet), a personal computer on the network can be operated from the GOT by using a mouse or keyboard.</p> <p>* Cannot be used for GT16 Handy.</p> 	 Chapter 9 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Backlight shutoff detection function  	<p>Detects the backlight shutoff of a LCD and indicates the backlight shutoff with the POWER LED on the GOT front face.</p> <p>* Cannot be used for GT104□, GT1030, and GT1020.</p> 	 Chapter 9 in GT16 User's Manual (Hardware) [SH-080923]  Chapter 19 in GT15 User's Manual [SH-080528ENG]  Chapter 17 in GT11 User's Manual [JY997D17501]  Chapter 17 in GT10 User's Manual [JY997D24701]  Chapter 17 in GT16 Handy GOT User's Manual [JY997D41201, JY997D41202]  Chapter 18 in GT11 Handy GOT User's Manual [JY997D20101, JY997D20102]

Main unit functions

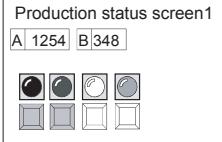
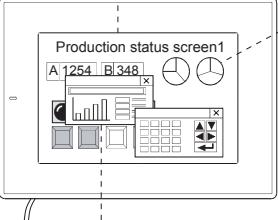
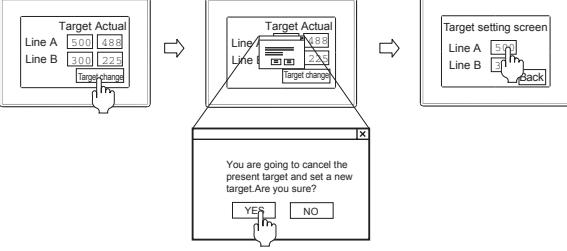
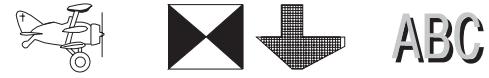
Function	Overview	Reference
FA transparent function  	<p>Enables a personal computer to read, write, and monitor a sequence program of the MITSUBISHI programmable controller via a GOT connected to the programmable controller and the personal computer. The software version applicable to the FA transparent function differs depending on the software.</p>  <p>Bus connection cable RS-232/RS-422 cable Ethernet connection cable</p> <p>The sequence program can be read, written, and monitored.</p>	Chapter 21 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 [SH-080868ENG] Chapter 30 in GT16 Handy GOT User's Manual [JY997D41201, JY997D41202] Chapter 57 in GT11 Handy GOT User's Manual [JY997D20101, JY997D20102]
Multi-channel function 	<p>Monitors up to four controllers (four channels), including a programmable controller CPU, a temperature controller, and an inverter, on one GOT with multiple communication drivers installed.</p> <p>For specifications and precautions of the multi-channel function, refer to "Precautions for Use" in section 3.2.</p>	Chapter 20 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 [SH-080868ENG] Chapter 29 in GT16 Handy GOT User's Manual [JY997D41201, JY997D41202]

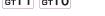
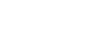
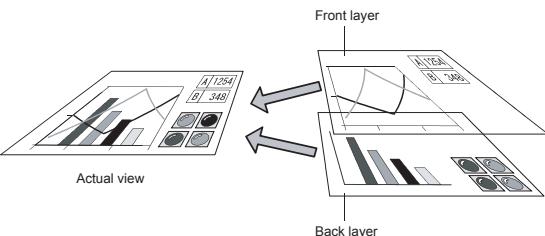
- * For GT155, monitors up to two controllers (two channels).
- * For GT16 Handy, only the following combinations are available.
 - Ethernet connection + Serial connection
 - Ethernet connection

Function	Overview	Reference
Gateway function 	<p>Monitors controllers of various manufacturers on one GOT or personal computer, and sends alarms occurred on the GOT by e-mail. The function supports remote monitoring and remote maintenance of a production site from an office.</p> 	 GOT1000 Series Gateway Functions Manual for GT Works3 [SH-080858ENG]
MES interface function 	<p>Sends the SQL text from the GOT to the database in the server computer connected via the Ethernet connection, and writes device values of the GOT to the database or reads database values to set the values for the GOT device. When the GOT communicates directly with the server computer, the gateway equipment for communications is not required. The function enables reducing the maintenance cost and improving reliability.</p>  <p>Cannot be used for GT16 Handy.</p>	 GOT1000 Series MES Interface Function Manual for GT Works3 [SH-080859ENG]

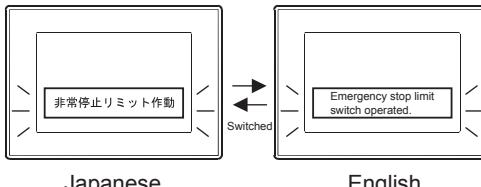
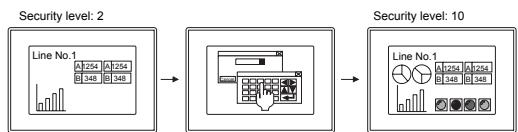
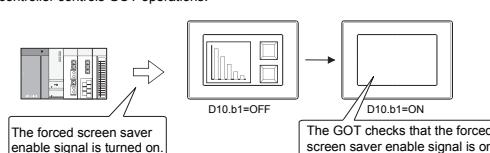
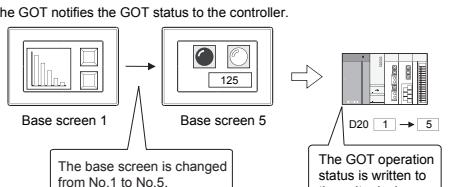
Function	Overview	Reference
SoftGOT-GOT link function  <p>The SoftGOT-GOT link function enables GT SoftGOT1000 to connect the GOT via Ethernet. And then, the function synchronizes GT SoftGOT1000 data with GOT project data and resource data. When input objects (touch switch, numerical input, and ASCII input) are input or other operation is performed, the simultaneous operation between GT SoftGOT1000 and the GOT must be prevented. The operation must be allowed by either GT SoftGOT1000 or the GOT. GT SoftGOT1000 can monitor a controller connected to the GOT.</p> <p>GT SoftGOT1000 monitors the controller connected to the GOT. GT SoftGOT1000 only monitors the controller with the channel number 1 assigned on the GOT. GT SoftGOT1000 cannot communicate with the controller other than the channel number 1 assigned.</p>  <p>GT SoftGOT1000 reads GOT project data from the GOT, and monitors the controller with the same project data as the read GOT project data.</p>	 Chapter 9 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]  Chapter 6 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 [SH-080860ENG]	

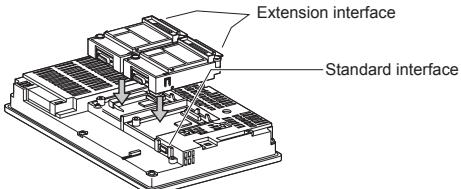
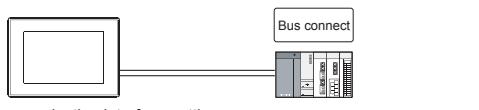
● Screen design

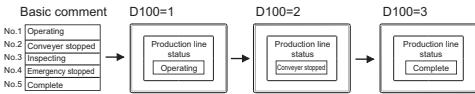
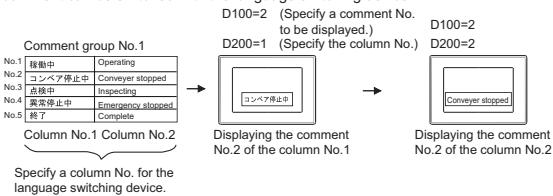
Function	Overview	Reference
Base screen Superimpose window display Overlap window display         	<p>Base screen</p>  <p>Basic screen for screen display on a GOT</p>  <p>Superimpose window</p>  <p>Window that is superimposed on the displayed base screen. When switching the superimpose window, a part of the base screen can be changed.</p> <p>Overlap window</p>  <p>Window that pops up on the base screen. The window can be moved or closed manually.</p>	 Chapter 2 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Dialog window display      	<p>Displays user-customized system messages and user-created messages on the GOT with dialog windows.</p>  <p>A dialog window such as guiding an operator to confirm the operation can be created and displayed.</p>	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Figure drawing      	<p>Displays figures drawn by the user, characters, and the BMP, DXF, and IGES format data imported with the drawing software on the GOT. (JPEG is available only for GT16, GT15 and GT SoftGOT1000. IGES is available only for GT16, GT15, GT SoftGOT1000, and GT11.)</p> 	 Chapter 2 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]

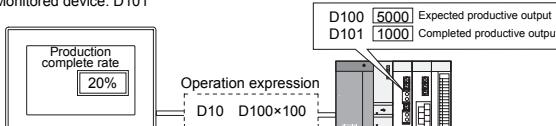
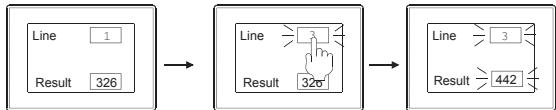
Function	Overview	Reference
Font	<p>Displays a wide variety of fonts, including the standard font compatible with Unicode 2.1 and the fonts available for Windows®.</p> <p>Standard font *1  8dot 12dot Standard(Gothic) 16dot Standard(Gothic) 16dot Standard(Mincho)</p> <p>HQ font  12dot HQ Mincho 12dot HQ Gothic 16dot HQ Mincho 16dot HQ Gothic</p> <p>TrueType font  TrueType Mincho True Type Gothic</p> <p>TrueType font Numerical  Gothic 7-Segment  12345 12345</p> <p>Windows® font  Windows font</p> <p>Stroke font*2  Stroke</p> <p>*1: Not available for GT1020. *2: Not available for GT11 and GT10.</p>	 Chapter 2 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Logo text	The text can be displayed with various effects such as gradation.	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Kanji region	<p>Some Chinese characters look different even with synonyms depending on the region where Chinese characters are used (Japanese kanji, simplified Chinese or traditional Chinese).</p> <p>With the function, Chinese characters in each region can be displayed. (For GT11, Japanese kanji and simplified Chinese can be displayed by installing an applicable standard font. Traditional Chinese cannot be displayed.)</p>   Japanese  Simplified Chinese - Mincho  Traditional Chinese - Gothic	 Chapter 2 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Object superimposition (layers)	<p>Superimposes two types of sheets (layers) and displays the sheets as one screen.</p> <p>Objects can be superimposed with layers.</p> 	 Chapter 5 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]

Function	Overview	Reference
Screen switching	<p>Switches the screen displayed on a GOT with the device value for switching screen.</p> <p>Switching base screens</p> <p>Device for switching base screens D100 [10]</p> <p>Base screen 10</p> <p>Change the device value</p> <p>Base screen 20</p> <p>The base screen number that is the same as the screen switching device appears.</p> <p>Switching overlap window 1</p> <p>Device for switching Overlap window 1 D120 [0]</p> <p>The window screen No.1 is displayed.</p> <p>D120 [1]</p> <p>The window screen that number is the same as the screen switching device appears. (“0” is deleted.)</p>	<p>Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]</p>
Station No. switching	<p>Switches the station No. of a controller to be monitored by setting the device value for switching station No.</p> <p>When the same kind of multiple machines are connected to the network, the multiple machines can be monitored on one monitor screen.</p> <p>Monitoring host station</p> <p>Monitoring D100</p> <p>Station No. 0 (Master station)</p> <p>Line A</p> <p>Output D100 [40]</p> <p>Station No.1</p> <p>Station No.2</p> <p>Station No. D100 [0] switching device</p> <p>Monitoring host station</p> <p>Monitoring D101</p> <p>Station No. 0 (Master station)</p> <p>Line B</p> <p>Output D100 [100]</p> <p>Station No.1</p> <p>Station No.2</p> <p>Station No. D101 [1] switching device</p> <p>Change the monitor target to station No.1.</p>	<p>Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]</p>

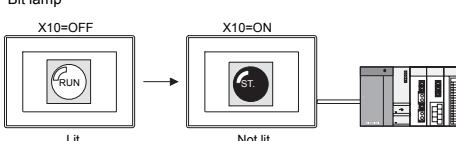
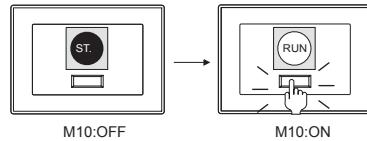
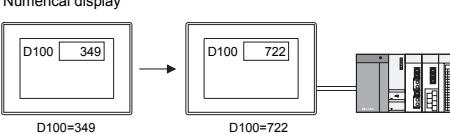
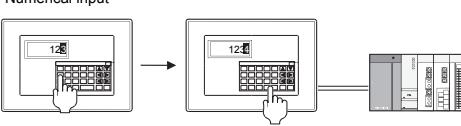
Function	Overview	Reference
Language switching function 	<p>Switches the language of a comment to be displayed by setting the device value for language switching when multiple languages is registered in each column of a comment group.</p> 	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Password setting 	<p>Sets passwords for displays, operations, upload operations, and utility operations of objects and screens. The setting of each password restricts the user for the operation.</p>  <p>Set a password for a high security level.</p> <p>Objects are displayed according to the changed security level.</p>	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
System information 	<p>Controls GOT operations, including erasing screens and disabling the key input, from a controller and notifies the GOT status to a controller according to the data written to the device.</p> <p>The controller controls GOT operations.</p>  <p>The forced screen saver enable signal is turned on.</p> <p>D10.b1=OFF</p> <p>D10.b1=ON</p> <p>The GOT checks that the forced screen saver enable signal is on, and the display disappears.</p> <p>The GOT notifies the GOT status to the controller.</p>  <p>Base screen 1</p> <p>Base screen 5</p> <p>The base screen is changed from No.1 to No.5.</p> <p>D20 1 → 5</p> <p>The GOT operation status is written to the write device.</p>	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]

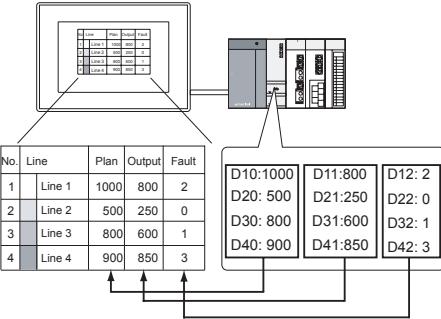
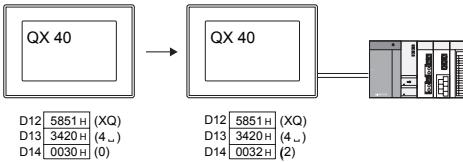
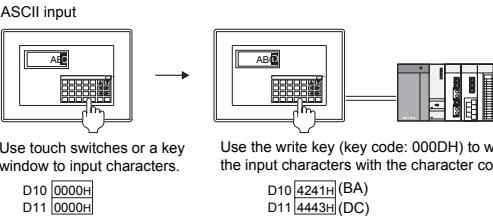
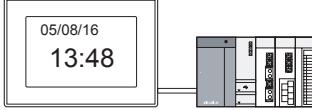
Function	Overview	Reference
Communication settings 	<p>Sets the connection type and the communication interface for communications between the GOT and a controller.</p>  <p>Communication interface setting (Example with the multi-channel function)</p>  <p>Communication interface setting (Example with the multi-channel function)</p>	<p>Chapter 1 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 [SH-080868ENG]</p> <p>Chapter 1 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 [SH-080869ENG]</p> <p>Chapter 1 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 [SH-080870ENG]</p> <p>Chapter 1 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]</p> <p>Chapter 3 in GT16 User's Manual (Basic Utility) [SH-080929ENG]</p> <p>Chapter 10 in GT15 User's Manual [SH-080528ENG]</p> <p>Chapter 10 in GT11 User's Manual [JY997D17501]</p> <p>Chapter 10 in GT10 User's Manual [JY997D24701]</p> <p>Chapter 11 in GT16 Handy GOT User's Manual [JY997D41201, JY997D41202]</p> <p>Chapter 10 in GT11 Handy GOT User's Manual [JY997D20101, JY997D20102]</p>

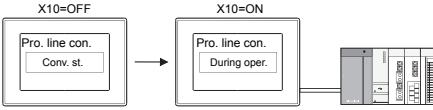
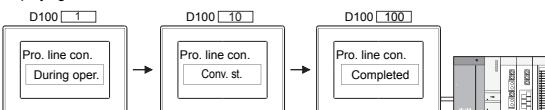
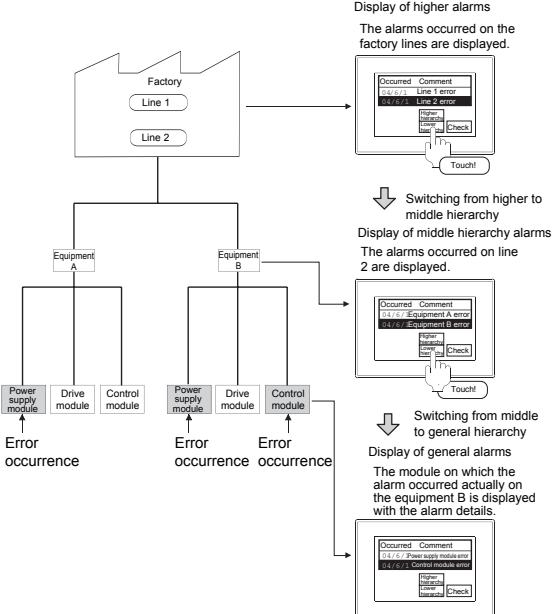
Function	Overview	Reference
Startup logo	<p>Changes the logo displayed when starting the GOT to any BMP screens.</p> <p>At the GOT startup</p>  <p>Original The set BMP screen is displayed.</p>	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Comment registration	<p>Registers character strings created by the user as a comment. The registered comments can be displayed with multiple object functions. The comment includes the basic comment and the comment group. (Available font for the basic comment is only 16dot(Standard/HQ Mincho).)</p> <ul style="list-style-type: none"> Basic comment display example The comment corresponding to the comment No. that is the same as the device value is displayed with the comment display function.  <p>Basic comment D100=1 D100=2 D100=3</p> <p>No.1 Operating Production line status No.2 Conveyer stopped Operating No.3 Inspecting Conveyer stopped No.4 Emergency stopped No.5 Complete Complete</p> <ul style="list-style-type: none"> Comment group display The comment corresponding to the comment No. that is the same as the device value is displayed with the comment display function. The column of the displayed comment can be switched with the language switching device.  <p>Comment group No.1 D100=2 (Specify a comment No. to be displayed.) D100=2 No.1 機器中 Operating D200=1 (Specify the column No.) No.2 コンベア停止中 Conveyer stopped D200=2 No.3 検査中 Inspecting No.4 緊急停止中 Emergency stopped No.5 終了 Complete</p> <p>Column No.1 Column No.2</p> <p>Displaying the comment No.2 of the column No.1 Displaying the comment No.2 of the column No.2</p> <p>Specify a column No. for the language switching device.</p>	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Part registration	<p>Registers figures created by the user as parts. The registered parts can be displayed with object functions.</p> <ul style="list-style-type: none"> When displaying BMP/JPEG files set as parts Store BMP/JPEG file, Memory card, Insert a memory card to a GOT. * The memory card is not available for GT10. When displaying registered parts Download parts registered with GT Designer2 to a GOT. 	 Chapter 4 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]

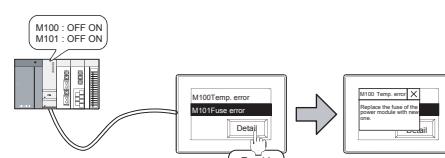
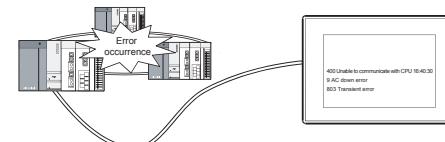
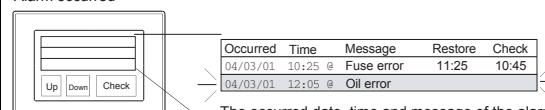
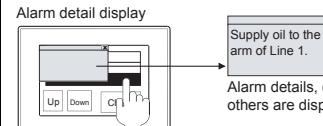
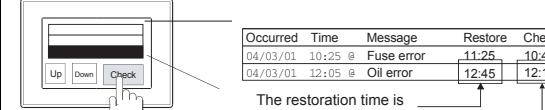
Function	Overview	Reference
Data operation function  gt16 gt15 GTSoft GOT1000  gt11 gt10	<p>Executes the calculations set in the data operation for the word device values, and monitors or writes with the calculated values.</p> <p>When using the data operation function for numerical input function Monitored device: D101</p>  <p>Displaying the complete rate corresponding to expectation.</p>	 Chapter 5 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Offset function  gt16 gt15 GTSoft GOT1000  gt11 gt10	<p>Monitors multiple devices by switching the devices with one device setting.</p> <p>When switching display from Line 1 to Line 3 D100=326 D300=442</p>  <p>The result of Line 1 (D100) is monitored. Switch a Line to be monitored. The result of Line 3 (D300) is monitored.</p>	 Chapter 5 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]

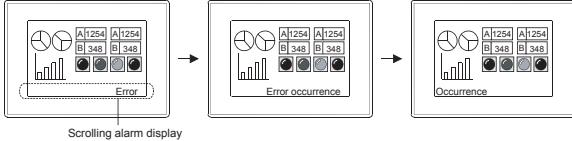
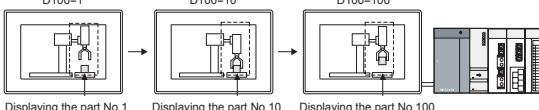
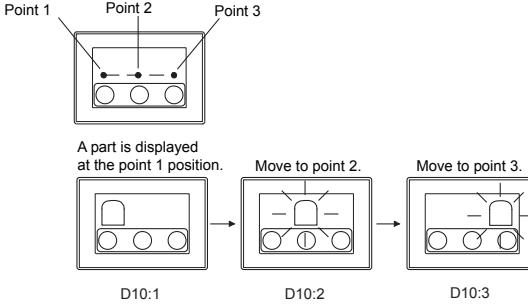
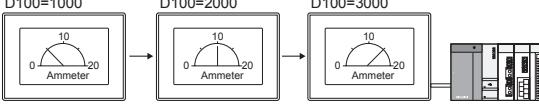
Function	Overview	Reference
Security function  <p>Limit the screen displays depending on the security level of the user. The authentic method for changing security levels includes the security level authentication and the operator authentication.</p> <p>Security level: 2 → Security level: 10</p> <p>Set an operator name and a password for a high security level. Objects are displayed according to the changed security level.</p> <ul style="list-style-type: none"> • Operator authentication The method authenticates the user with operator information set for each user after the security level is changed. The following two authentication methods are available for the operator authentication. <ul style="list-style-type: none"> (a) Password authentication (GT16, GT15, GT Soft GOT1000) Authenticates with the operator name and password input by the user. (b) External authentication (GT16, GT15) Authenticates with the external authentication ID input from an external authentication device. • Security level authentication The method authenticates the user with the password for each security level when the security level is changed. <p>Changing the security level from 0 to 4</p> <p>Security level: 0 Line 1 control screen Production volume Password Displaying the screen for changing the security level.</p> <p>Security level: 0 → 4 Input the password of security level 4.</p> <p>Security level: 4 Line 1 control screen Production volume St. Mt. Password Objects limited by the security function are displayed.</p>	Chapter 5 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]	

Function	Overview	Reference
Lamp display  	Changes lamp colors according to the ON/OFF status of the bit device or the word device value. <p>Bit lamp</p> 	 Chapter 3 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Touch switch  	Turns bit devices on or off and switches the GOT screens with touching the screen. 	 Chapter 2 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Numerical display/ Numerical input  	Displays the data stored in devices of a controller as numeric values on a GOT or writes any values from a GOT to devices of a controller. <p>Numerical display</p>  <p>Numerical input</p>  <p>Use touch switches or a key window to input a value.</p>	 Chapter 5 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]

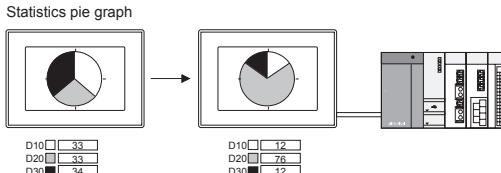
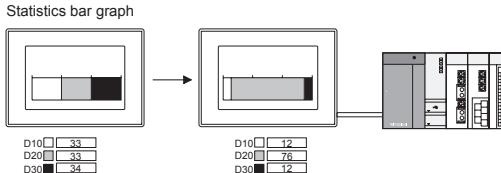
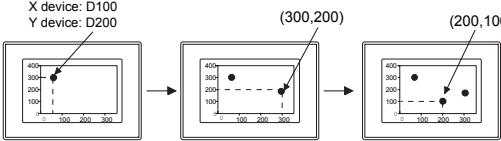
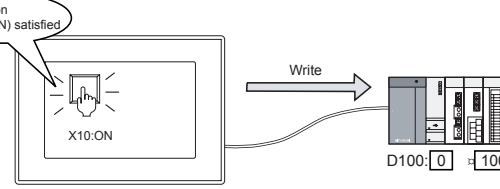
Function	Overview	Reference
Data list 	<p>Displays multiple word device values in a list. The line number and ruled lines of a list are automatically displayed.</p> 	 Chapter 7 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
ASCII display/ ASCII input 	<p>Recognizes the data stored in the word device as the character code. The function displays character strings or writes the input characters to the word device with the character code.</p> <p>ASCII display</p>  <p>ASCII input</p>  <p>Use touch switches or a key window to input characters. D10 [0000H] D11 [0000H]</p> <p>Use the write key (key code: 000DH) to write the input characters with the character code. D10 4241H(BA) D11 4443H(DC)</p>	 Chapter 6 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Clock display 	<p>Displays the date and time on a GOT.</p>  <p>* GT16, GT15, GT11, GT105, GT104, and GT1030: The clock data of a GOT or programmable controller CPU is used. GT SoftGOT1000: The clock data of a personal computer is used. GT1020: The clock data of a programmable controller CPU is used.</p>	 Chapter 8 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]

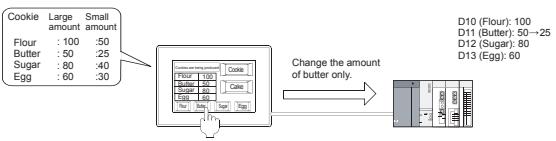
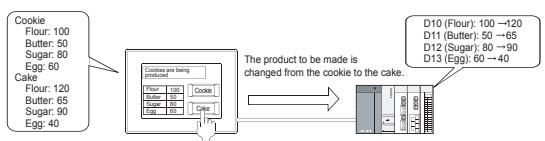
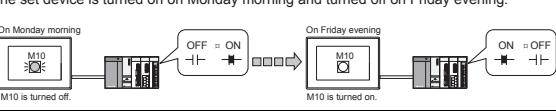
Function	Overview	Reference
Comment display 	<p>Displays a comment corresponding to the ON/OFF status of the bit device or the word device value.</p> <p>Displaying comments with the ON/OFF of the bit device</p>  <p>Comment when the bit device is OFF Comment when the bit device is ON</p> <p>Displaying comments with the word device value</p>  <p>Displaying the comment of comment No.1 Displaying the comment of comment No.10 Displaying the comment of comment No.100</p>	 Chapter 9 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Advanced alarm observation/display 	<p>Function that is more advanced than conventional alarm functions (system alarm and user alarm). Comments for an alarm can be displayed in three hierarchies (higher, middle and general hierarchies). When an alarm occurs in a large system, details of the alarm occurrence can be displayed.</p>  <p>Display of higher alarms The alarms occurred on the factory lines are displayed.</p> <p>Switching from higher to middle hierarchy Display of middle hierarchy alarms The alarms occurred on line 2 are displayed.</p> <p>Switching from middle to general hierarchy Display of general alarms The module on which the alarm occurred actually on the equipment B is displayed with the alarm details.</p>	 Chapter 10 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]

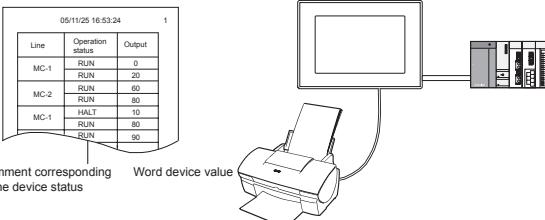
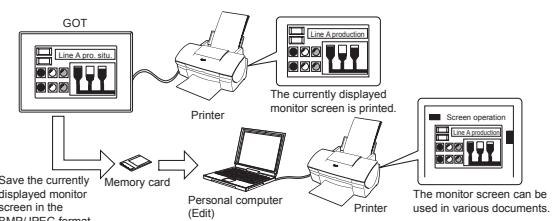
Function	Overview	Reference
Alarm display    	<p>Displays user-created alarms (user alarm) and system errors (system alarm). (Only the user alarm is available for GT10.)</p> <p>User alarm display Use the function to display the alarm created by the user.</p>  <p>System alarm display Use the function to display the controller, GOT, and network errors.</p> 	 Chapter 10 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Alarm history display    	<p>Saves the times and comments of alarm occurrences in the built-in memory of the GOT, and displays the saved data as a history list.</p> <p>Alarm occurred</p>  <p>The occurred date, time and message of the alarm are displayed when X0 is turned on.</p> <p>Alarm detail display</p>  <p>Alarm details, corrective actions for errors, and others are displayed</p> <p>The window for displaying details is any of the comment window, base screen, or window screen.</p> <p>Alarm checked time/System restoration</p>  <p>The restoration time is displayed. Use the touch switch for displaying the alarm history to display the alarm checked time.</p>	 Chapter 10 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]

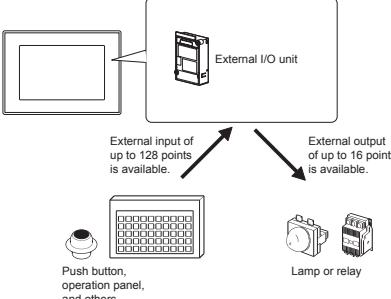
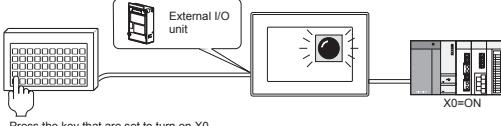
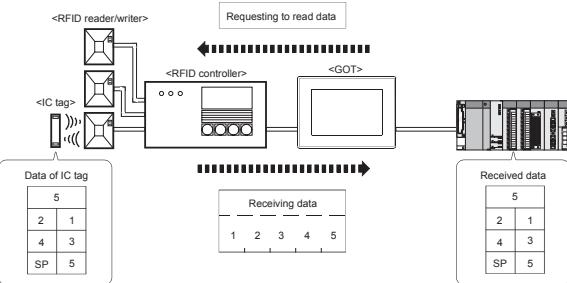
Function	Overview	Reference
Scrolling alarm display 	<p>Enables user-created comments to scroll across the screen from right to left when an alarm occurs.</p> <p>A comment is repeatedly displayed until causes of the alarm are removed. The comment display position can be selected from among the top, center, and bottom of the base screen.</p> <p>The comment corresponding to the occurred alarm scrolls across the screen from right to left.</p> 	 Chapter 10 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Parts display 	<p>Displays registered parts according to the device status.</p> 	 Chapter 20 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Parts movement 	<p>Changes the part position and displays the part at the changed position by setting the word device value.</p> <p>When executing parts movement display with specifying [Point]</p> 	 Chapter 21 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Panelmeter display 	<p>Displays the percentage of the word device value between the upper and lower limit values in a meter (needle movement).</p> 	 Chapter 12 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]

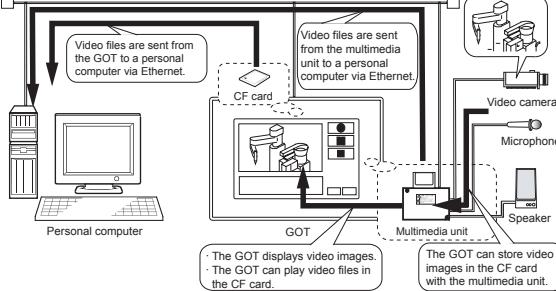
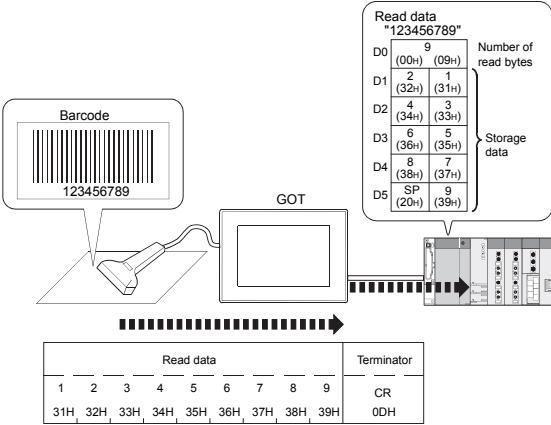
Function	Overview	Reference
Level display	Fills a range equivalent to the percentage of the word device value between the upper and lower limit values.	 Chapter 11 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
	D100=0 → D100=50 → D100=100 	
Trend graph	Continuously collects word device data and displays the collected data in a trend graph.	 Chapter 14 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
	D10 = 100 D11 = 50 → D10 = 200 D11 = 100 → D10 = 150 D11 = 100 Graph1 (—): D10 Graph2 (---): D11 Displays to the end of graph display range in order. Continues to collect data when the following graph is displayed by scrolling.	
Historical trend graph	Displays the device data collected with the logging function in a trend graph in time sequence.	 Chapter 19 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
	Usually, the collected data is displayed in trend graph. → Display the past data. → Display the latest data. Data collected by the logging function Graph display range Graph display range Graph display range	
Line graph	Collects multiple word device data in block and displays the collected data in a line graph.	 Chapter 13 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
	D10=100 D11= 50 D12=200 D13=150 → D10=150 D11=100 D12=250 D13=350 	
Bar graph	Collects word device data and displays the collected data in a bar graph.	 Chapter 15 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]

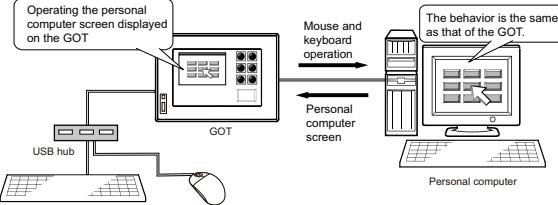
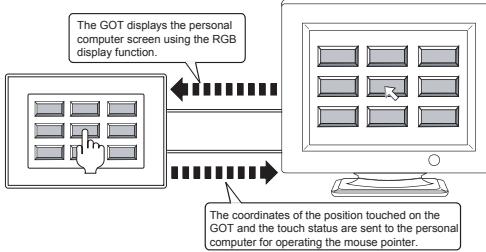
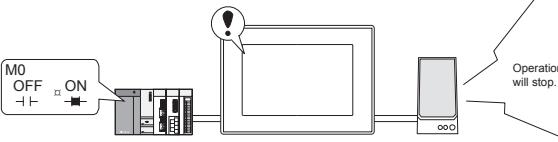
Function	Overview	Reference												
Statistics graph  	<p>Displays the data ratio of collected multiple word devices to the total data in a statistics pie/bar graph.</p> <p>Statistics pie graph</p>  <table border="1"> <tr><td>D10</td><td>33</td></tr> <tr><td>D20</td><td>33</td></tr> <tr><td>D30</td><td>34</td></tr> </table> <p>Statistics bar graph</p>  <table border="1"> <tr><td>D10</td><td>12</td></tr> <tr><td>D20</td><td>76</td></tr> <tr><td>D30</td><td>12</td></tr> </table>	D10	33	D20	33	D30	34	D10	12	D20	76	D30	12	 Chapter 16 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 17 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
D10	33													
D20	33													
D30	34													
D10	12													
D20	76													
D30	12													
Scatter graph  	<p>Displays two word device values as points on an x-y coordinate system on a graph.</p>  <p>X device: D100 Y device: D200</p> <p>(300,200)</p> <p>(200,100)</p>	 Chapter 18 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]												
Status observation function  	<p>Turns a device on/off and writes a device value when the specified conditions are met.</p>  <p>Condition (X10: ON) satisfied</p> <p>X10:ON</p> <p>Write</p> <p>D100: 0</p>	 Chapter 26 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]												

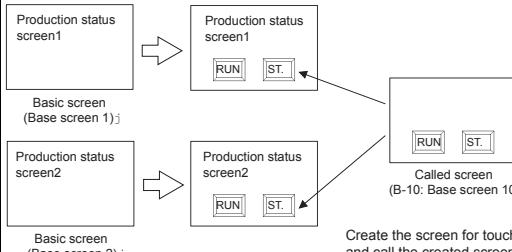
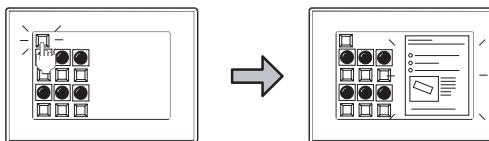
Function	Overview	Reference
Advanced recipe function 	<p>Function that is more advanced than the recipe function The available number of recipe settings, device points or records is increased. In addition, the advanced recipe setting and the record are combined to create flexible recipe data.</p> <p>When changing only one of materials</p> 	 Chapter 24 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Recipe function 	<p>Stores data (device values) such as blend and processing conditions of materials in a GOT and writes/reads the required data from/to the GOT to/from a programmable controller.</p> <p>Change the amounts of used materials depending on the product to be made.</p> 	 Chapter 24 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
Time action function 	<p>Turns the bit device on/off, writes the value to the word device or performs other operations at the set day or time. The function is enabled with the day or time of the GOT.</p> <p>The set device is turned on on Monday morning and turned off on Friday evening.</p> 	 Chapter 27 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]

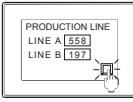
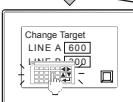
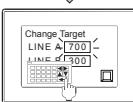
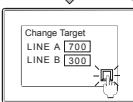
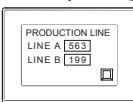
Function	Overview	Reference
Report function 	<p>Collects the data of the production management and status, and then prints the collected data.</p> <p>The following data can be printed with the function.</p> <ul style="list-style-type: none"> Word device value Comment corresponding to the device status <p>Comment corresponding to the device status</p> <p>Word device value</p>  <p>* The following communication units cannot be mounted on the printer unit. • Bus connection unit (thinned type): GT15-75QBUS(2)L, GT15-75ABUS(2)L • MELSECNET/10 communication unit: GT15-75J71LP23-Z, GT15-75J71BR13-Z • CC-Link communication unit: GT15-75J61BT13-Z * Cannot be used for GT16 Handy.</p>	 Chapter 36 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 12 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]
Hard copy function 	<p>Prints the monitor screen currently displayed on the GOT with a printer or saves the monitor screen currently displayed on the GOT to a memory card in the BMP/JPG file format.</p> <p>The BMP/JPEG files saved in the memory card can be used for various documents on a personal computer.</p>  <p>* The following communication units cannot be mounted on the printer unit. • Bus connection unit (thinned type): GT15-75QBUS(2)L, GT15-75ABUS(2)L • MELSECNET/10 communication unit: GT15-75J71LP23-Z, GT15-75J71BR13-Z • CC-Link communication unit: GT15-75J61BT13-Z * Cannot be used for GT16 Handy.</p>	 Chapter 37 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 12 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]

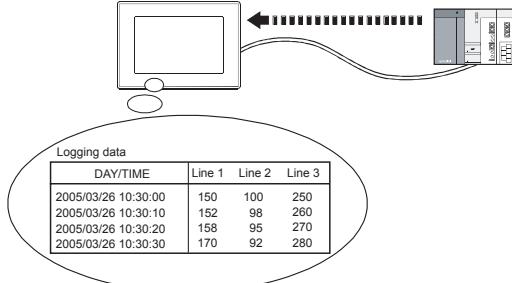
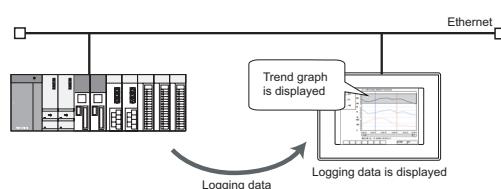
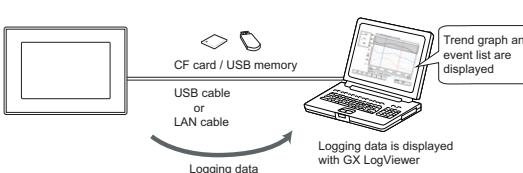
Function	Overview	Reference
External I/O function 	<p>Executes external inputs and external outputs (lamp and relay) with the external I/O unit.</p> <p>When using the external I/O function, the setting of GT Designer2 is not required.</p> <p>* Cannot be used for GT16 Handy.</p> 	 Chapter 34 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 7 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]
Operation panel function 	<p>With the external I/O unit, input operations, including the touch input, numerical input, and screen switching, can be operated with an operation panel.</p> <p>When using the operation panel function, the operation panel must be set with GT Designer2.</p> <p>* Press the key that are set to turn on X0.</p> <p>* With the keyboard input function, operations equivalent to the ones with the operation panel function are available for GT SoftGOT1000.</p> <p>* Cannot be used for GT16 Handy.</p> 	 Chapter 34 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 7 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]
RFID Function 	<p>Enables the GOT to write data received by a RFID reader/writer of a RFID controller connected to the GOT into devices.</p> <p>Connect the RFID controller to the RS-232 interface of the GOT.</p> <p>* Cannot be used for GT16 Handy.</p> 	 Chapter 30 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 14 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]

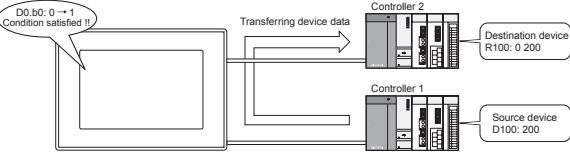
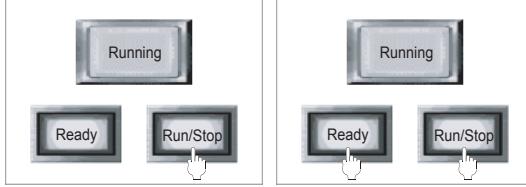
Function	Overview	Reference
Multimedia function 	<p>This function enables to display or record video images taken by a camcorder connected to a multimedia unit and play video files stored in a CF card.</p> <p>Recorded video images can be stored in the CF card with the multimedia unit.</p> <p>Stored video files can be sent from GOT/multimedia unit to a personal computer via Ethernet.</p>  <p>* Cannot be used for GT16 Handy.</p>	 Chapter 33 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 13 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]  Chapter 2 in GT16 User's Manual (Basic Utility) [SH-080929ENG]
Bar code function 	<p>Connects the bar code reader to a GOT to write the data read by the bar code reader to a controller.</p> <p>The bar code reader is connected to RS-232 interface of a GOT.</p>  <p>* Cannot be used for GT16 Handy.</p>	 Chapter 29 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]  Chapter 9 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]

Function	Overview	Reference
Remote personal computer operation (Ethernet)	<p>The remote personal computer operation (Ethernet) enables to operate a personal computer by using the GOT via Ethernet.</p> <p>The remote personal computer operation (Serial) enables to use a mouse using the USB mouse/keyboard function.</p> <p>By using a personal computer with the server OS, the remote personal computer operation (Ethernet) enables to operate multiple GOTs by using the terminal server function.</p>  <p>* Cannot be used for GT16 Handy.</p>	 <p>Chapter 31 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]</p> <p>Chapter 10 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]</p>
Remote personal computer operation (Serial)	<p>The function enables to operate the mouse pointer on a personal computer by touching the personal computer screen displayed on the GOT using the RGB display function.</p> <p>The USB mouse can be used with the USB mouse/keyboard function combined. (GT16 only)</p>  <p>* Cannot be used for GT16 Handy.</p>	 <p>Chapter 31 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]</p> <p>Chapter 10 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]</p>
Sound output function	<p>Outputs sounds with speakers connected to the GOT. The sound output is applicable to the following functions.</p> <ul style="list-style-type: none"> • Touch switch function • Status observation function • Time action function <p>For using the sound output function with the GOT, register sound files.</p>  <p>The specified sound file is output when set conditions are met (When M0 turns on.).</p> <p>* Cannot be used for GT16 Handy.</p>	 <p>Chapter 38 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]</p> <p>Chapter 6 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 [SH-080871ENG]</p>

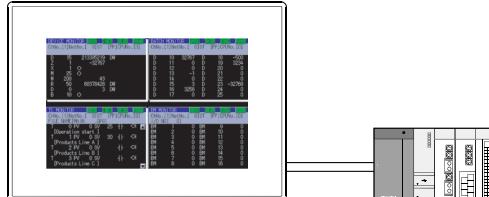
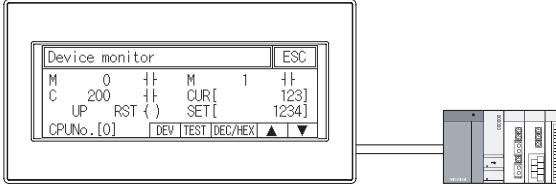
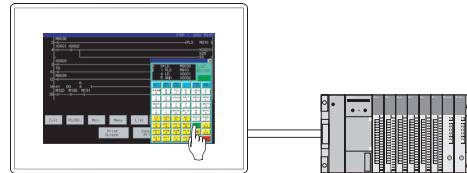
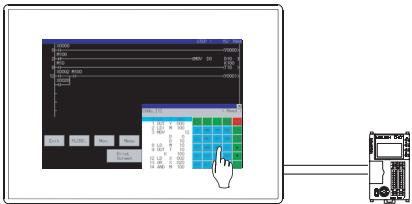
Function	Overview	Reference
Set overlay screen function 	<p>Calls other base screens or window screens to place on a basic screen and displays the called screens as one screen. When setting the same objects on multiple screens, the memory capacity can be saved.</p>  <p>Create the screen for touch switches and call the created screen on each screen.</p>	 Chapter 9 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]
Document display function 	<p>Enables displaying documents created with applications, including Microsoft® Word and Microsoft® Excel, on the GOT. Documents, including specifications and manuals, can be displayed on the GOT. Therefore, documents can be used on a screen for troubleshooting, and documents for operations can be displayed during monitoring.</p>  <p>Documents for operating switches and others are displayed on the GOT.</p>	 Chapter 9 in GT Designer3 Version1 Screen Design Manual (Fundamentals) [SH-080866ENG]

Function	Overview	Reference
Operation log function  <p>Saves GOT operation data by the user in a memory card as a history. When troubles occur at production sites, the operation history can be used to identify the cause of the troubles.</p> <p>The saved operation history can be checked by the following methods.</p> <ul style="list-style-type: none"> Display the operation history with the GOT utility. Save the operation history as a CSV file or Unicode text file and display the saved operation history on a personal computer.  <p>Switch the screen to the base screen 10.</p> <p>Date: 10:40 Screen: - Details: Switching the screen Before: - After: Base screen 10</p>  <p>Change the value by entering numerical value.</p>  <p>Set the changed value.</p> <p>Date: 10:40 Screen: - Details: Switching the screen Before: - After: Base screen 10</p> <p>Date: 10:45 Screen: Base screen 10 Details: Entering numeric value Before: 600 After: 700</p>  <p>Switch the screen to the base screen 20.</p> <p>Date: 10:40 Screen: - Details: Switching the screen Before: - After: Base screen 10</p> <p>Date: 10:45 Screen: Base screen 10 Details: Entering numeric value Before: 600 After: 700</p> <p>Date: 10:50:00 Screen: - Details: Switching the screen Before: - After: Base screen 20</p> 	 Chapter 22 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]	

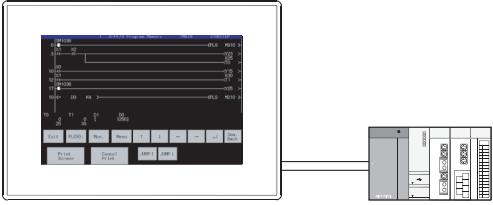
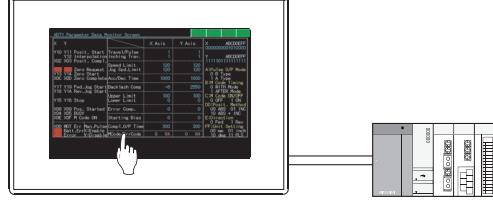
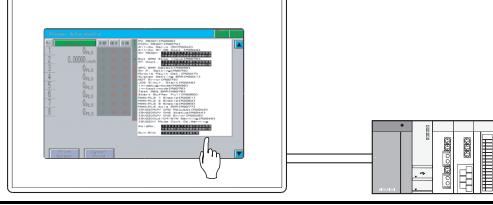
Function	Overview	Reference																				
Logging function 	<p>Collects and stores device values of a controller at an arbitrary timing or intervals.</p> <p>The collected data can be displayed as a historical trend graph. The collected data is also displayed on a personal computer with saving the data as a CSV file or Unicode text file.</p>  <table border="1"> <thead> <tr> <th>DAY/TIME</th> <th>Line 1</th> <th>Line 2</th> <th>Line 3</th> </tr> </thead> <tbody> <tr> <td>2005/03/26 10:30:00</td> <td>150</td> <td>100</td> <td>250</td> </tr> <tr> <td>2005/03/26 10:30:10</td> <td>152</td> <td>98</td> <td>260</td> </tr> <tr> <td>2005/03/26 10:30:20</td> <td>158</td> <td>95</td> <td>270</td> </tr> <tr> <td>2005/03/26 10:30:30</td> <td>170</td> <td>92</td> <td>280</td> </tr> </tbody> </table>	DAY/TIME	Line 1	Line 2	Line 3	2005/03/26 10:30:00	150	100	250	2005/03/26 10:30:10	152	98	260	2005/03/26 10:30:20	158	95	270	2005/03/26 10:30:30	170	92	280	 Chapter 23 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]
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2005/03/26 10:30:20	158	95	270																			
2005/03/26 10:30:30	170	92	280																			
Log viewer function 	<p>Log viewer displays the logging data acquired from the high speed data logger module and LCPU, on the GOT, and controls files.</p> <p>Displaying logging data without personal computer</p> <ul style="list-style-type: none"> Using the log viewer function, the logging data stored in the CF card or SD card of LCPU can be viewed on the GOT. The logging data can be stored in the CF card or USB memory mounted on the GOT and the data can be displayed on the GOT.  <p>Logging data can be retrieved from the GOT</p> <ul style="list-style-type: none"> The logging data acquired from the high speed data logger module and LCPU can be retrieved from the GOT to the personal computer. 	 Chapter 16 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]																				

Function	Overview	Reference
Device data transfer function  <p>Enables the GOT to read values of specified devices and write the values into the other devices at any timing or by trigger intervals.</p> 	<p>Chapter 25 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]</p>	
Script function  <p>Controls a more complex GOT display with creating GOT's original program (script). Controlling the GOT display with the script function drastically reduces the load on the system side (controllers) display.</p> <p>Example) Setting the interlock function to touch switches</p>  <p>When the [Run/Stop] key is turned on without the [Ready] key, the [Running] lamp does not light. When the [Ready] and [Run/Stop] keys are turned on, the [Running] lamp lights.</p> <p>* The object script function is not available for GT11.</p>	<p>Chapter 28 in GT Designer3 Version1 Screen Design Manual (Functions) [SH-080867ENG]</p>	

● Maintenance functions

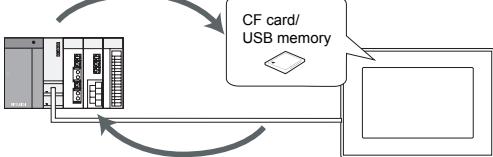
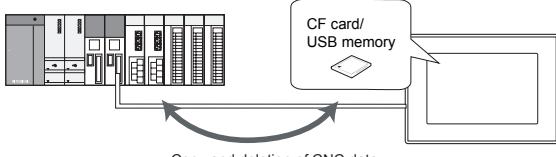
Function	Overview	Reference
System monitor function 	<p>Monitors and tests devices of a programmable controller CPU and the buffer memory of an intelligent function module with a dedicated screen. Preparing a debugging screen is not required for checking devices.</p> 	 Chapter 2 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
Device monitor function 	<p>For a controller connected to the GOT, forcibly turning on or off devices of the controller and changing the set value or present value are available.</p> 	 Chapter 14 in GT10 User's Manual [JY997D24701]
MELSEC-A list editor function 	<p>Edits the sequence program of the ACPU in list format. Programs can be easily changed on GOT at worksites.</p> 	 Chapter 4 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
MELSEC-FX list editor function 	<p>Edits the sequence program of the FXCPU in list format. Programs can be easily changed on GOT at worksites.</p> 	 Chapter 5 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]

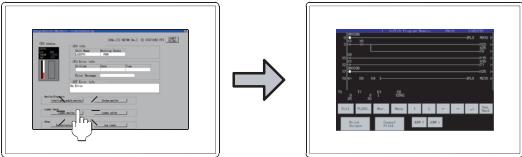
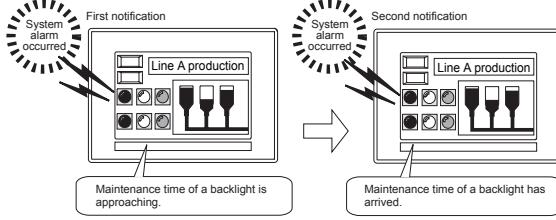
* Cannot be used for GT1030 and GT1020.

Function	Overview	Reference
Ladder monitor function 	Monitors the sequence program of a programmable controller CPU in the ladder format with a dedicated screen. With the ladder monitor function, the cause of errors can be investigated on the GOT. 	 Chapter 3 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
Ladder editor function 	Edits sequence programs of a programmable controller CPU in the ladder diagram format with a dedicated screen. 	 Chapter 14 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
Intelligent module monitor function 	Monitors the buffer memory of an intelligent function module and changes the data with a dedicated screen. The signal status of I/O modules can also be monitored. 	 Chapter 6 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
Q motion monitor function 	Sets the servo monitoring and parameter of a motion controller CPU (Q series) with a dedicated screen. 	 Chapter 8 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]

Function	Overview	Reference
Servo amplifier monitor function	Enables various monitor functions, parameter changes, test operations, and others for a servo amplifier with a dedicated screen. 	 Chapter 9 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
Network monitor function	Monitors the network status of CC-Link IE CONTROLLER NETWORK, MELSECNET/H, MELSECNET/10, MELSECNET(II), and MELSECNET/B with a dedicated screen. 	 Chapter 7 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
CNC monitor function	Monitors the position display, alarm diagnosis, tool offset parameter, program data, and others equivalent to those for the MELDAS dedicated display with a dedicated screen. 	 Chapter 10 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]

* Cannot be used for GT16 Handy.

Function	Overview	Reference
Backup/restore function 	<p>Saves (backs up) the setting data, including a sequence program, parameters, setting values, for a controller connected to the GOT to a memory card installed in the GOT, and restores the saved data to the controller if required.</p> <p>The system can be backed up/restored without a personal computer.</p> <p>Back up the setting data of a controller.</p>  <p>Restore the saved setting data of the controller.</p> <p>* The USB memory is only supported by GT16.</p>	 Chapter 11 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
CNC data I/O function 	<p>Copies or deletes machining programs, parameters and others on the CNC connected to a GOT.</p> <p>CF card/USB memory</p>  <p>Copy and deletion of CNC data</p> <p>* The USB memory is only supported by GT16.</p> <p>* Cannot be used for GT16 Handy.</p>	 Chapter 12 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
SFC monitor function 	<p>The GOT can monitor and display SFC programs of the PLC CPU in the SFC diagram format (MELSAAP3 or MELSAAP-L format) with a dedicated screen. With the SFC monitor function, investigating the causes of errors in PLC systems is available with the GOT.</p> 	 Chapter 13 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]
Motion SFC monitor function 	<p>Monitors the motion SFC programs in the motion controller CPU (Q series) connected to the GOT and device values.</p> 	 Chapter 17 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]

Function	Overview	Reference
MELSEC-L troubleshooting function 	<p>Displays the status and errors of LCPU connected to the GOT and the GOT errors.</p> <p>In addition, starts the ladder monitor or others from the MELSEC-L troubleshooting screen, to perform troubleshooting and maintenance.</p>  <p>Start the ladder monitor from the MELSEC-L troubleshooting screen.</p>	 <p>Chapter 15 in GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3 [SH-080863ENG]</p>
Maintenance report function 	<p>Automatically counts the backlight energization time (number of times for holding down the touch key and writing to the built-in flash memory), the maintenance time can be indicated in two stages.</p>  <p>First notification System alarm occurred Maintenance time of a backlight is approaching.</p> <p>Second notification System alarm occurred Maintenance time of a backlight has arrived.</p>	 <p>Chapter 2 in GT16 User's Manual (Basic Utility) [SH-080929ENG]</p>  <p>Chapter 16 in GT15 User's Manual [SH-080528ENG]</p>  <p>Chapter 17 in GT16 Handy GOT User's Manual [JY997D41201, JY997D41202]</p>

4. CONNECTION CONFIGURATION

The GOT1000 series can connect to various FA devices including the MITSUBISHI programmable controller.

Select a device to be connected to the GOT.

4.1 MITSUBISHI Programmable Controller	94
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4. CONNECTION CONFIGURATION

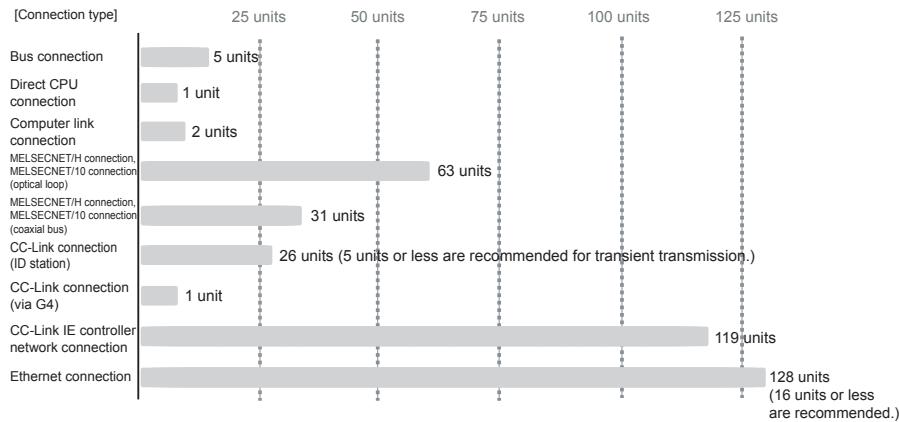
4.1 MITSUBISHI Programmable Controller

4.1.1 Connection type

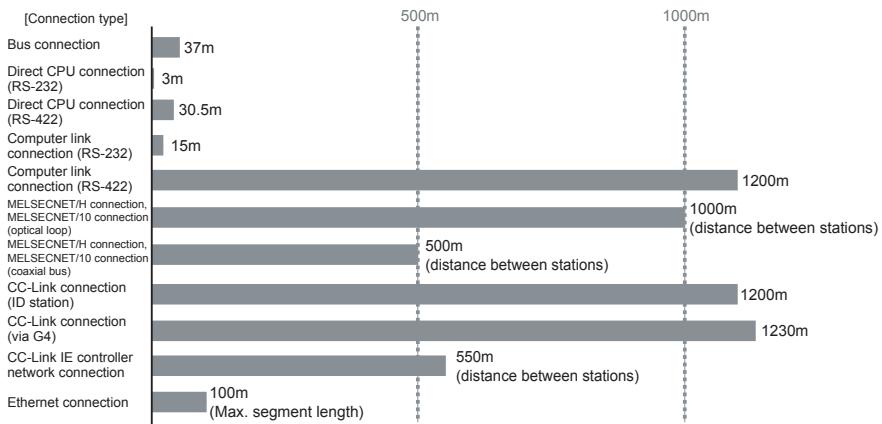
● Feature of each connection type

Connection type	Feature
Bus connection	Enables the quick response with touch switches equivalent to that with push buttons.
Direct CPU connection	Enables connecting to the MELSEC-Q/L/QnA/A/FX series at the lowest cost.
Computer link connection	Enables easily connecting the GOT to a programmable controller with the serial communication.
MELSENET/H, MELSENET/10 connections (programmable controller to programmable controller network)	Enables using multiple GOTs as remote control terminals.
CC-Link IE controller network connection	Enables sending/receiving large size data at high speed connection.
CC-Link connection (ID)	Enables connecting the GOT as an intelligent device station in a CC-Link system.
CC-Link connection (via G4)	Enables connecting the GOT to a CC-Link system via the AJ65BT-G4-S3 or AJ65BT-R2N.
Ethernet connection	Enables the remote maintenance from offices at production sites with connecting the GOT to the Ethernet system.

● Max. number of connectable GOTs for connecting to QCPU



●Max. installation distance between GOT and QCPU



● Connectable models

Series	Model	GT16/GT15/GT11								GT SoftGOT1000								GT10						
		Connection type				Connection type				Connection type				Connection type				Connection type						
		Bus connection ³	Direc CPU connection	Computer link	MESEC-NET/H1	MESEC-NET/H1 ¹	CC-LINK IE controller network ¹	CC-LINK (ID) ¹	CC-LINK (ID) Via G4	Ethernet ¹	Bus connection	USB connection	Direc CPU connection	Computer link	MESEC-NET/H	MESEC-NET/H1	CC-LINK IE controller network ¹	CC-LINK (ID)	CC-LINK (ID) Via G4	Ethernet	Direc CPU connection	Computer link	CC-LINK (Via G4)	
MELSEC-Q series (Q mode)	Q00JCPU	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q00CPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q01CPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q02CPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q02HCPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q06HCPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q12HCPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q25HCPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q02PHCPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q06PHCPU	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Redundant system (main base unit)	Q12PRHCPU	×	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q25PRHCPU	×	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Redundant system (extension base unit)	Q12PRHCPU	×	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q25PRHCPU	×	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-U series	Q00UJCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q00UCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q01UCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q02UCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q03UDCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q04UDCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q06UDCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q10UDCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q13UDCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q20UDCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
C controller	Q12DCCPU-V*6	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Q12DCCPU-V*8	○	*5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-QS series	QS001CPU	×	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-L series	L02CPU	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-Q series (A mode)	L26CPU-BT	○	*7	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-QnA series (QnCPU type)	Q02CPU-A	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-QnA series (QnASCPU type)	Q2ACPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-QnA series (QnASCPU type)	Q2ACPU-S1	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-QnA series (QnASCPU type)	Q3ACPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-QnA series (QnASCPU type)	Q4ACPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-QnA series (QnASCPU type)	Q4ARCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	Q2ASCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	Q2ASCPU-S1	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	Q2ASHCPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	Q2ASHCPU-S1	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2CPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2CPU-S1	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A3CPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A4CPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2ACPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2ACPU21	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2NCPU21	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2ACPU-S1	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2ACPU21-S1	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A2ACPU21-S1	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MELSEC-A series (AnCPU type)	A3ACPU	○	○	*4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

1: Supported by GT16 and GT15 only. (GT16 Handy can be connected only through Ethernet.)

2: Available only for GT16, GT15, GT15e, GT15e-BDQ, and GT15e-BDQ.

3: Available only for GOT15, GOT15e, GOT-BDQ, and GOT15e-BDQ.

4: Available for GOT multi-drop connection. Not available for GT11 Handy.

5: Connect via the QCPU (RS-232) on the multiple CPU system.

6: Use a model of Q12DCCPU-V whose the first five digits of the serial number are 12042 or later.

7: L6AD9-R2 is required for connecting via RS-232.

8: Use a C24 serial port controlled by another station in the multiple CPU system.

● Connectable models

Series	Model	GT16/GT15/GT11										GT SoftGOT1000				GT10	
		Connection type					Connection type					Connection type		Connection type		Connection type	
		Bus connection* 3		Direct CPU connection		Computer link	MESEC-NET/H* 1		MESEC-NET/H* 1</th <th data-kind="ghost"></th> <th data-cs="2" data-kind="parent">CC-Link IE controller network*<!--1--></th> <th data-kind="ghost"></th> <th data-cs="2" data-kind="parent">CC-Link ID*<!--1--></th> <th data-kind="ghost"></th> <th data-cs="2" data-kind="parent">Ethernet*<!--1--></th> <th data-kind="ghost"></th>		CC-Link IE controller network* 1		CC-Link ID* 1		Ethernet* 1		
MELSEC-A series (AnSCPU type)	A3ACPUP21		O														
	A3ACPUR21																
	A1NCPU																
	A1NCPUP21																
	A1NCPUR21																
	A2NCPU																
	A2NCPUP21																
	A2NCPUR21																
	A2NCPU-S1																
	A2NCPUP21-S1																
	A3NCPU																
	A3NCPUP21																
	A3NCPUR21																
	A2USCPU																
	A2USCUPU-S1																
	A2USHCPU-S1																
MELSEC-A series	A1SCPU																
	A1SCPUC24-R2																
	A1SHCPU																
	A2SCPU																
	A2SCPU-S1																
	A2SHCPU																
	A2SHCPU-S1																
	A1SJCPU																
	A1SJCPU-S3																
	A1SJHCPU																
	A0J2HCPU																
	A0J2CPUP21																
	A0J2HCPUR21																
	A0J2HCPUDC24																
	A2CPU																
Motion controller CPU (Q series)	A2CCPUP21	x															
	A2CCPUR21																
	A2CCPUC24																
	A2CCPUC24-PRF																
	A2CCPUS-S3																
	A1FXCPU																
	Q172CPU																
	Q173CPU																
	Q172CPUN																
	Q173CPUN																
	Q172DCPU																
	Q173DCPU																
	Q172DCPUN																
	Q173DCPUN																
Motion controller CPU (A series) (Large-sized type)	A273UHCPU	O															
	A273UHCPUDC24																
	A273UHCPUS-S3																
	A373UHCPU																
	A373UHCPUDC24																
	A171SCPU																
	A171SCPUS-S3																
	A171SCPUS-S3N																
	A171SHCPU																
	A171SHCPUN																
	A172SHCPU																
	A173SHCPU																
	A173SHCPUN																
MELSEC-WS series	WS0-CPU0	x	O	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	WS0-CPU1																
	WS0-CPU2																
	QJ72LP25-25	x	O	O	x	x	x	x	x	x	x	x	x	x	x	x	x
	QJ72P25G																
	QJ72BR15																

*1: Supported by GT16 and GT15 only. (GT16 Handy can be connected only through Ethernet.)

*2: Available only when GT SoftGOT1000 is installed on the PC CPU module.

*3: Available only for GT15, GT16, QJ72LP25, and GT15G-QJ72BDA.

*4: Available only for QJ72LP25 drop connected. Not available for GT16 Handy.

*5: Connect via the QCPU (RS-232) on the multiple CPU system.

Series	Model	GT16/GT15/GT11								GT SoftGOT1000						GT10					
		Connection type								Connection type						Connection type					
		Bus connection ³	Direct CPU connection	Computer link	MELSEC-NET/H ¹	MELSEC-NET/H ¹⁰	CC-Link IE controller network ¹	CC-Link (DI) ¹	CC-Link (VG) ¹	Ethernet ¹	Bus connection	168-MB connection ²	Direct CPU connection	Computer link	MELSEC-NET/H	CC-Link IE controller network ¹	CC-Link (DI)	Ethernet	Direct CPU connection	Computer link	CC-Link (VG)
CC-Link IE field network head module	LJ72GF15-T2	x	x	o	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
CNC C70	Q173NCCPU	o	o	o	o	o	o	o	o	o	x	x	x	x	x	x	x	x	x	x	x
Robot controller	CRnQ-700	o	o	o	o	o	o	o	o	o	o	x	x	x	x	x	x	x	x	x	x
	CRnD-700	x	x	x	x	x	x	x	x	x	o	x	x	x	x	x	x	x	o	x	x
MELSEC-FX series	FX0																				
	FX0S																				
	FX0N																				
	FX1																				
	FX2																				
	FX2C																				
	FX1S																				
	FX1N	x	o ⁴	x	x	x	x	x	x	x	o	x	x	x	x	x	x	x	o ⁴	x	x
	FX2N																				
	FX1NC																				
	FX2NC																				
	FX3G																				
	FX3U																				
	FX3UC																				

*1: Supported by GT16 and GT15 only. (GT16 Handy can be connected only through Ethernet.)

*2: Available only when GT SoftGOT1000 is installed on the PC CPU module.

*3: Available only for GT15, GT115□-Q□BDQ, and GT115□-Q□BDA.

*4: Available for GOT multi-drop connection. Not available for GT11 Handy.

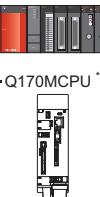
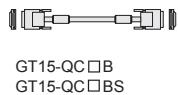
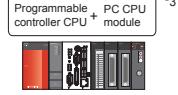
The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
GT10	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	GT105□ RS-232 or RS-422 connections	GT105□-Q□BD
	GT104□ RS-232 or RS-422 connections	GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	GT1030 GT1020 RS-422 connection	GT1030-L□D/L□DW, GT1030-L□U/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

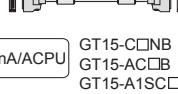
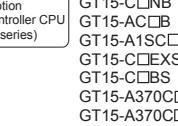
4.1.2 Bus connection

System configuration

1) QCPU (Q mode)/C controller/Motion controller CPU (Q series)/CNC C70/Robot controller

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> • QCPU • C controller^{*6} • Motion controller CPU (Q series) • CNC C70^{*1} • CRnQ-700^{*1}  	 <p>GT15-QC□B GT15-QC□BS</p>	When connecting multiple units  GT15-QBUSL ^{*2} GT15-QBUS2L ^{*2}	 Max. number of GOTs connected 5 Max. connection distance 37 m For details, refer to section 4.1.3.	
		Thinned type with only 1  GT15-75QBUSL ^{*2} GT15-75QBUS2L ^{*2}		
		Not required Built in GOT	 *5	
Target device				
 <p>Programmable controller CPU[*] + PC CPU module^{*3}</p> <p>Install to a PC CPU module</p>  <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>				

2) QnA/ACPU/Motion controller CPU (A series)

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> • QnA/ACPU • Motion controller CPU (A series)  	  <p>GT15-C□NB GT15-AC□B GT15-A1SC□B GT15-A1SC□NB GT15-C□EXSS-1 GT15-C□BS GT15-J2C□B</p> <p>Motion controller CPU (A series)</p>	When connecting multiple units  GT15-ABUSL ^{*4} GT15-ABUS2L ^{*4}	 Max. number of GOTs connected 3 Max. connection distance 36.6 m For details, refer to section 4.1.3.
		Thinned type with only 1  GT15-75ABUSL ^{*4} GT15-75ABUS2L ^{*4}	
		Not required Built in GOT	 *5
Target device			

*1: Configure the multiple CPU system.

*2: Use the GT15-QBUS(2) for mounting the following units. GT15-75QBUS(2)L is not available.

Units for the multimedia function, printer function, Video/RGB display, RGB output, function to use CF card unit/CF card extension unit, Ethernet download, gateway function, and MES interface function

For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

*3: Connect the PC CPU module to a programmable controller CPU on the same main base unit.

*4: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2)L is not available.

Units for the multimedia function, report function, hard copy function (when printing), Video/RGB display, RGB output, CF card unit/CF card extension unit, Ethernet download, gateway function, and MES interface function

For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

*5: Connect to the first stage of the extension base unit (Q52B/Q55B).

*6: Use a model whose the first five digits of the serial number are 12042 or later.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD



Precautions

■ Other precautions

- For the cable configuration of GT15-C□EXSS-1, refer to "External Dimensions" in section 1.5.
- Use the GT15-QBUS(2) or GT15-ABUS(2) for mounting units for the remote personal computer operation function, report function, hard copy function (when printing), Video/RGB display, RGB output, external I/O function, operation panel function, sound output function, multimedia function, CF card unit/CF card extension unit, Ethernet download, gateway function, and MES interface function.
The GT15-75QBUS(2)L and GT15-75ABUS(2)L are not available.
For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.
- When connecting multiple GOTs, the GOT1000 series, GOT-A900 series, GOT800 series and A77GOT cannot be connected together.
- For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.
- When connecting to Q00JCPU or Q00UJCPU of MELSEC-Q series (Q mode)
When using the bus extension connector box, mount it on the extension base unit. (The bus extension connector box cannot be mounted on the main base unit.)
- When connecting to Q4ARCPU of MELSEC-QnA series (QnACPU type)
For the redundant Q4ARCPU system, connect the GOT to redundant extension base unit A68RB (version B or later) at the last stage via the bus connection.
- When connecting to A1SJCPU, A1SJCPU-S3, and A1SJHCPU of MELSEC-A series (AnSCPU type)
When using the extension base unit, the bus connection is disabled.
- When connecting to motion controller CPU (Q series)
 - For Q172CPU or Q173CPU
Use the motion controller CPU with the following production numbers.
Q172CPU with K***** or later, Q173CPU with J***** or later
 - For Q172 or Q173CPU
For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00E or later, SW6RN-SV22Q□: 00E or later, SW6RN-SV43Q□: 00B or later
 - For Q172CPUN or Q173CPUN
For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later
- When connecting to motion controller CPU (A series) (small-sized type)
When using the extension base unit, use the A168B.
- For other precautions for the bus connection, refer to "Details of bus connection" in section 4.1.3.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of bus connection
 - For the accessible range that can be monitored by GOT
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- ▶ Chapter 5 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

1

GOT

2

SOFTWARE

3

FUNCTION

4

CONNECTION

CONFIGURATION

5

COMPLIANCE

WITH OVERSEAS

STANDARDS

6

EQUIPMENT,

SOFTWARE,

AND MANUALS

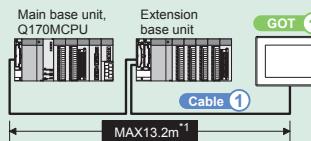
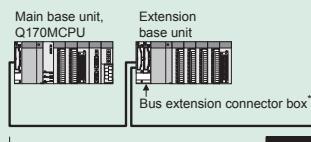
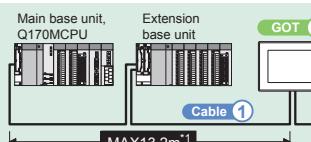
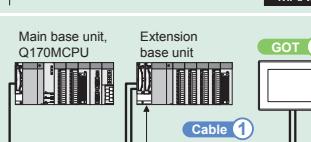
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GLOSSARY

4.1.3 Details of bus connection

●When connecting to QCPU (Q mode)/motion controller CPU (Q series)

Number of GOTs connected
5

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT ¹	Connection distance
1	13.2m or less	
	13.2m or more	
2 to 5	13.2m or less	
	13.2m or more ⁵	

*1: When the extension base unit is used, the extension cable length (between the base units) is included.

For the cable between the main base unit and extension base unit, refer to Mitsubishi Programmable Logic Controller MELSEC-Q (Catalog) (L(NA)-08033E).

*2: When the first GOT is installed 13.2m or more away from the main base unit, the bus extension connector box is required.

Without the extension base unit: Mount the bus extension connector box to the main base unit.

With the extension base unit: Mount the bus extension connector box to the last stage of the extension base unit.

(The bus extension connector box cannot be mounted to the main base unit when a GOT is connected to Q00/QCPU. Mount the bus extension connector box to the extension base unit.)

*3: The cable length between the main base unit and a programmable controller and a terminal GOT within 37m.

*4: Indication of cable model (example) GT15-QCBP_06.00m~GT15-QC06

*5: There are following restrictions depending on the total cable length when three or more GOTs are connected.

Use the same power supplies of a programmable controller and all GOTs and turn on or off all the power supplies simultaneously.

○: Unrestricted △: Restricted

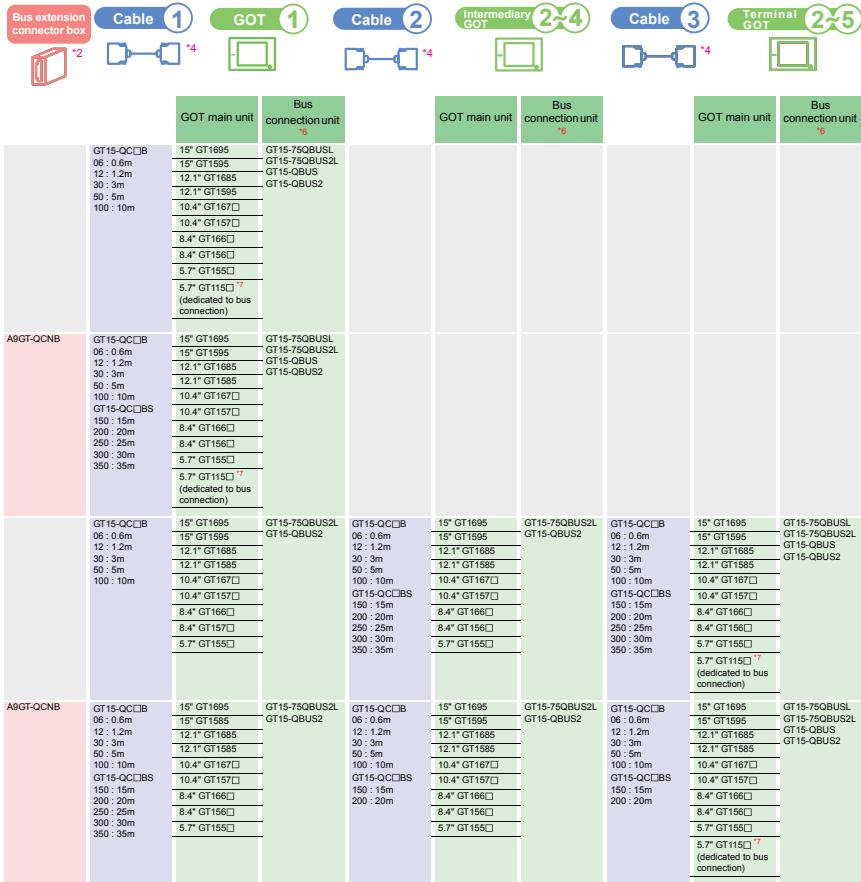
Number of GOTs connected	Total cable length			
	15m or less	20m or less	25m or less	37m or less
2 or less	○	○	○	○
3	○	○	○	△
4	○	○	△	△
5	○	△	△	△

*6: Use the GT15-QBUS(2) for mounting the following units. GT15-QBUS(2)L is not available.

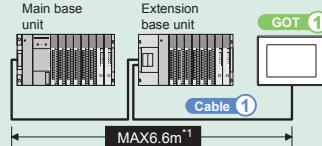
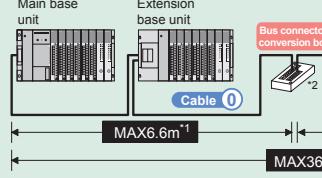
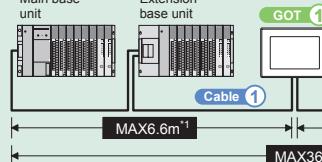
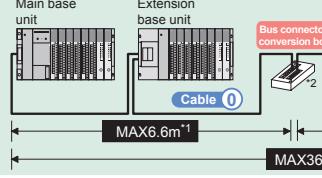
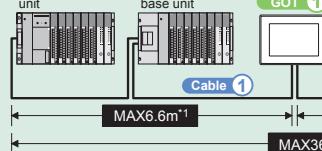
Units for the multimedia function, Video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CF card unit, and CF card extension unit.

*7: For GT15, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

*7: The bus connection unit is not required for GT15C (dedicated to the bus connection).



●When connecting to QnACPU type or AnCPU type

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT ¹	Connection distance
1	6.6m or less	
	6.6m or more	
2	6.6m or less	
	6.6m or more	
3	6.6m or less	

*1: When the extension base unit is used, the extension cable length (between the base units) is included.

For the cable between the main base unit and extension base unit, refer to Mitsubishi Programmable Logic Controller MELSEC-Q (Catalog) (L(NA)-08033E).

*2: When the first GOT is installed 6.6m or more away from the main base unit, the bus connector conversion box is required.

*3: Select a cable to keep the total cable length between the main base unit of a programmable controller and a terminal GOT within 36.6m.

*4: For GT15-C EXSS-1.

*5: Consisting of GT15-EXXN-0.5mm and GT15-C BS (10 to 30m).

*6: When calculating the cable length, use GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), and GT15-C300EXSS-1 (30m).

*7: Connect connectors as shown below.

Connector "COM1" — Programmable controller Connector "COM2" — GOT



		Cable ① GOT ①		Cable ② GOT ②		Cable ③ GOT ③	
		GOT main unit	Bus connection unit ⁷	GOT main unit	Bus connection unit ⁷	GOT main unit	Bus connection unit ⁷
	GT15-CNB 12 : 1.2m 30 : 3m 50 : 5m	GT15-CNB 12 : 1.2m 30 : 3m 50 : 5m	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT166□ 5.7" GT155□ 5.7" GT115□ ⁸ (dedicated to bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
	GT15-ACB 06 : 0.6m 12 : 1.2m 30 : 3m 50 : 5m	A7GT-CNB GT15-C□ EXSS-1	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT166□ 5.7" GT155□ 5.7" GT115□ ⁸ (dedicated to bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
	GT15-CNB 12 : 1.2m 30 : 3m 50 : 5m		15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT166□ 5.7" GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
	GT15-ACB 06 : 0.6m 12 : 1.2m 30 : 3m 50 : 5m	A7GT-CNB GT15-C□ EXSS-1	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT166□ 5.7" GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
	GT15-CNB 12 : 1.2m 30 : 3m 50 : 5m		15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT166□ 5.7" GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
	GT15-CNB 12 : 1.2m 30 : 3m 50 : 5m		15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT166□ 5.7" GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			

⁵: Indication of cable model (example) "GT15-ACB 06:0.6m" → GT15-AC06B

⁶: Select a cable to keep the total cable length within 30m.

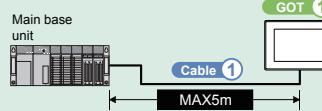
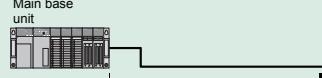
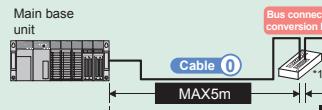
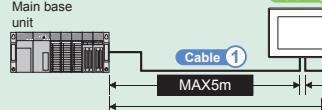
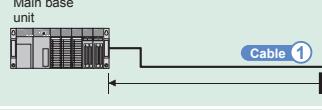
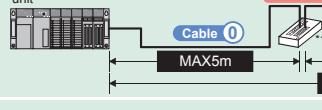
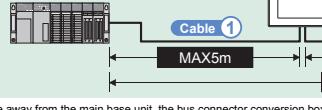
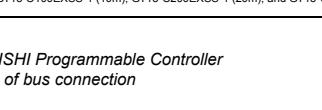
⁷: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2)L is not available.

Units for the multimedia function, Video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CF card unit, and CF card extension unit

For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

⁸: The bus connection unit is not required for GT15□ (dedicated to the bus connection).

●When connecting to QnASCPU type or AnSCPU type without the extension base unit

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT	Connection distance
1	5m or less	
	5m or more 30m or less	
	5m or more 35m or less	
	5m or less	
	5m or more	
	5m or more 35m or less	
	5m or less	
	5m or more	
	5m or more 35m or less	

*1: When installing the 1st GOT 30m or more away from the main base unit, the bus connector conversion box is required.

*2: Select a cable to keep the total cable length between the main base unit of a programmable controller and a terminal GOT within 35m.

*3: Select a cable to keep the total cable length within 30m.

*4: Consisting of GT15-EXCNB (0.5m) and GT15-C100EXSS-1 (10 to 30m).

*5: When calculating the cable length, use GT15-C200EXSS-1 (20m), and GT15-C300EXSS-1 (30m).

When connecting to
A173UHCPU(-S1)

number of GOTs connected
2

When connecting to
A171SHCPU
A172SHCPU

number of GOTs connected
2

		Cable ① Bus connector conversion box	Cable ①	GOT ①	Cable ②	GOT ②	Cable ③	GOT ③	
		GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	Bus connection unit ⁶ GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	
GT15-A1SC□NB	A7/G1-CNB	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	Bus connection unit ⁶ GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	
GT15-A1SC□NB	A7/GT-CNB	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	Bus connection unit ⁶ GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	
		GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	Bus connection unit ⁶ GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	GOT main unit 15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115C□ ⁷ (dedicated to bus connection)	

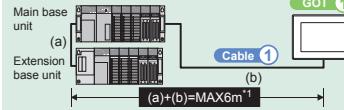
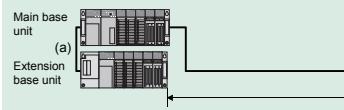
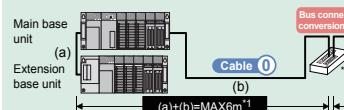
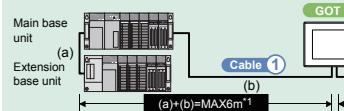
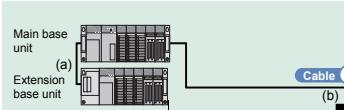
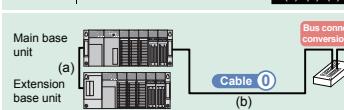
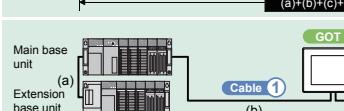
⁵: Indication of cable model (example) "GT15-A1SC□NB 05:0.45m" → GT15-A1SC05NB⁶: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2), is not available.

Units for the multimedia function, Video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CF card unit, and CF card extension unit

For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

⁷: The bus connection unit is not required for GT115C (dedicated to the bus connection).

● When connecting to QnASCPU type or AnSCPU type with the extension base unit

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT	Connection distance
1	6m or less	
	6m or more	
	6m or more	
2	6m or less	
	6m or more	
	6m or more	
3	6m or less	

*1: The extension cable length (between the main base units) is included.

For the cable between the main base unit and extension base unit, refer to Mitsubishi Programmable Logic Controller MELSEC-C (Catalog) (L-NA)-08033E

*2: When installing the 1st GOT 30m or more away from the main base unit, the bus connector conversion box is required.

*3: When calculating the total cable length between the main base unit of a programmable controller and a terminal GOT within 36m.

*4: For GT15-CCEXSS-...

-Consisting of GT15-EXCN8 (0.5m) and GT15-CIBS (10 to 30m).

-When calculating the cable length, use GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), and GT15-C300EXSS-1 (30m).

		Cable 0 Bus connector conversion box	Cable 1	GOT 1	Cable 2	GOT 2	Cable 3	GOT 3	
		GT15-A1SC□IB 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	GT15-A1SC□IB 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□ 5.7' GT115□ ^⑨ (for bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	
GT15-A1SC□NB	A7GT-CNB	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GT15-C□ EXSS-1 100 : 10m 200 : 20m 300 : 30m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□ 5.7' GT115□ ^⑨ (for bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	
GT15-A1SC□NB	A7GT-CNB	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GT15-C□ EXSS-1 100 : 10m 200 : 20m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-C□IBS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□ 5.7' GT115□ ^⑨ (for bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	
GT15-A1SC□NB	A7GT-CNB	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GT15-C□ EXSS-1 100 : 10m 200 : 20m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-C□IBS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□ 5.7' GT115□ ^⑨ (for bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	
GT15-A1SC□NB	A7GT-CNB	GT15-C□ EXSS-1 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	GT15-C□ EXSS-1 100 : 10m 200 : 20m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-C□IBS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□ 5.7' GT115□ ^⑨ (for bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	
		GT15-A1SC□IB 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	GT15-A1SC□IB 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	GT15-C□IBS 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	15' GT1695 15' GT1595 12.1' GT1685 12.1' GT1585 10.4' GT167□ 10.4' GT157□ 8.4' GT166□ 8.4' GT156□ 5.7' GT155□ 5.7' GT115□ ^⑨ (for bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2	

^⑤: Indication of cable model (example) "GT15-A1SC□NB 0.5/0.45m" → GT15-A1SC05NB^⑥: Select a cable to keep the total cable length within 30m.^⑦: GT15-A1SC□IB is not available. Instead, use the GOT 15.2 series, GT15-75ABUSL/2L, is not available.

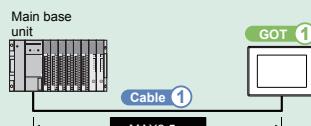
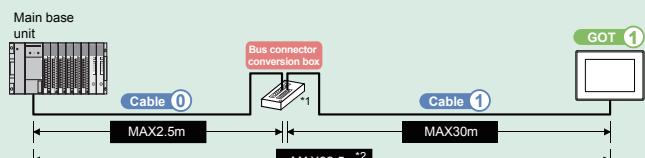
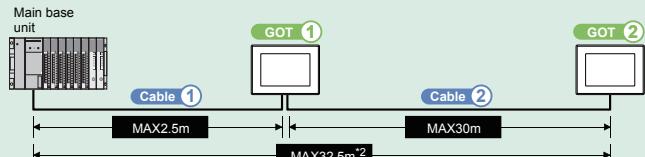
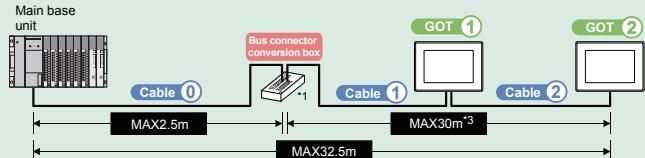
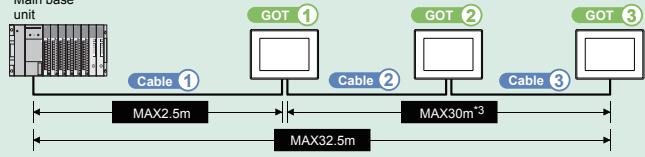
Units for the multimedia function, Video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CF card unit, and CF card extension unit

For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

^⑧: The bus connection unit is not required for GT115□ (dedicated to the bus connection).

● When connecting to motion controller CPU (A273UCPU, A273UHCPU(-S3), A373UCPU(-S3)) without the extension base unit

Number of GOTs connected
Max. 3

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT	Connection distance
1	2.5m or less	
	2.5m or more 32.5m or less	
2	2.5m or less	
	2.5m or more 32.5m or less	
3	2.5m or less	

*1: When installing the 1st GOT 30m or more away from the main base unit, the bus connector conversion box is required.

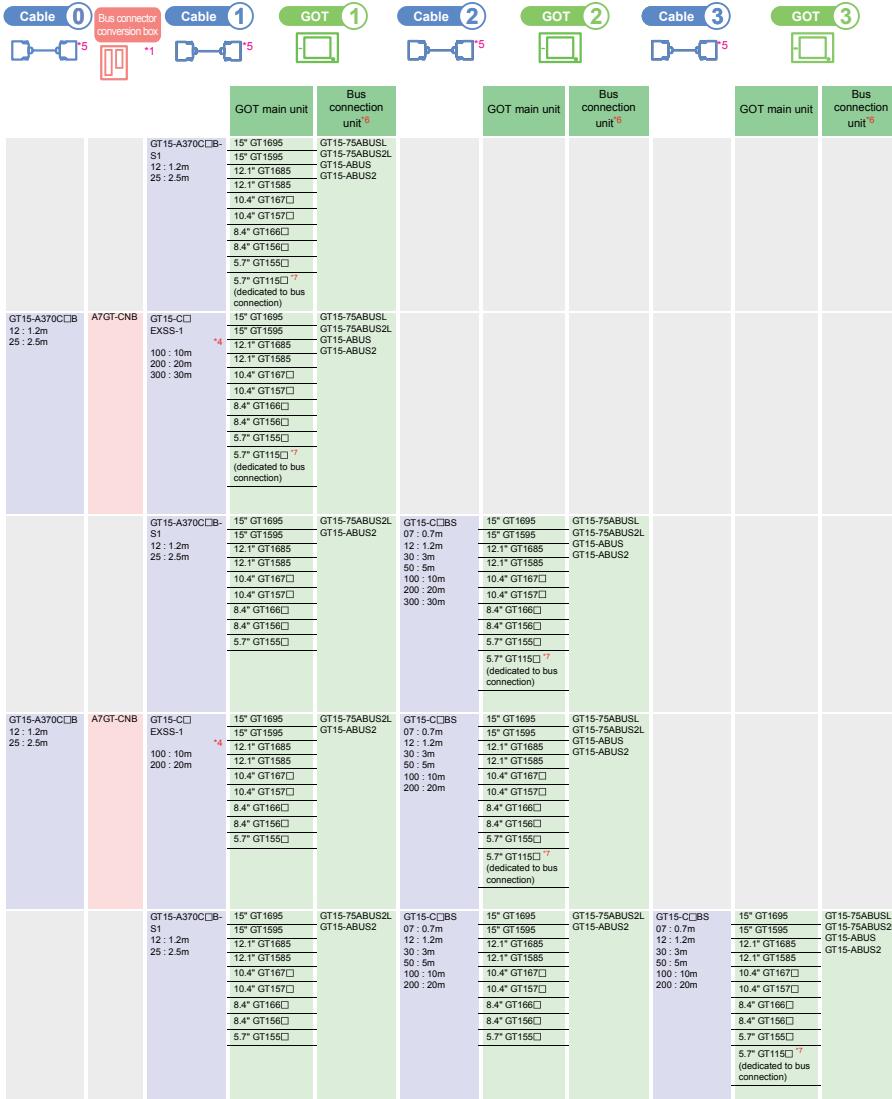
*2: Select a cable to keep the total cable length between the main base unit of a programmable controller and a terminal GOT within 32.5m.

*3: Select a cable to keep the total cable length within 30m.

*4: For GT15-C-EXSS-1

-Consisting of GT15-EXCNB (0.5m) and GT15-C-BS (10 to 30m).

-When calculating the cable length, use GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), and GT15-C300EXSS-1 (30m).



*5: Indication of cable model (example) "GT15-A1SC□NB 05: 0.45m" → GT15-A1SC05NB

*6: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2)L is not available.

Units for the multimedia function, Video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CF card unit, and CF card extension unit

*7: The bus connection unit is not required for GT115□ (dedicated to the bus connection).

7: The bus connection unit is not required for GT115 (dedicated to the bus connection).

●When connecting to motion controller CPU (A273UCPU, A273UHCPU(-S3), A373UCPU(-S3)) with the extension base unit

Number of GOTs connected
3

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT	Connection distance
1	6.6m or less	<p>Main base unit → Extension base unit → GOT 1</p> <p>Cable 1 (between main base unit and extension base unit)</p> <p>MAX6.6m¹</p>
	6.6m or more	<p>Main base unit → Extension base unit → Bus connector conversion box → GOT 1</p> <p>Cable 0 (between main base unit and extension base unit)</p> <p>Cable 1 (between extension base unit and bus connector conversion box)</p> <p>MAX6.6m¹</p> <p>MAX30m</p> <p>MAX36.6m^{1,3}</p>
2	6.6m or less	<p>Main base unit → Extension base unit → GOT 1</p> <p>Cable 1 (between main base unit and extension base unit)</p> <p>MAX6.6m¹</p> <p>Main base unit → Extension base unit → GOT 1 → GOT 2</p> <p>Cable 2 (between GOT 1 and GOT 2)</p> <p>MAX30m</p> <p>MAX36.6m^{1,3}</p>
	6.6m or more	<p>Main base unit → Extension base unit → Bus connector conversion box → GOT 1 → GOT 2</p> <p>Cable 0 (between main base unit and extension base unit)</p> <p>Cable 1 (between extension base unit and bus connector conversion box)</p> <p>Cable 2 (between bus connector conversion box and GOT 2)</p> <p>MAX6.6m¹</p> <p>MAX30m⁶</p> <p>MAX36.6m¹</p>
3	6.6m or less	<p>Main base unit → Extension base unit → GOT 1</p> <p>Cable 1 (between main base unit and extension base unit)</p> <p>MAX6.6m¹</p> <p>Main base unit → Extension base unit → GOT 1 → GOT 2 → GOT 3</p> <p>Cable 2 (between GOT 1 and GOT 2)</p> <p>Cable 3 (between GOT 2 and GOT 3)</p> <p>MAX30m⁶</p> <p>MAX36.6m</p>

*1: The extension cable length (between the main base units) is included.

*2: For the cable between the main base unit and extension base unit, refer to Mitsubishi Programmable Logic Controller MELSEC-Q (Catalog) (L(NA)-08033E)

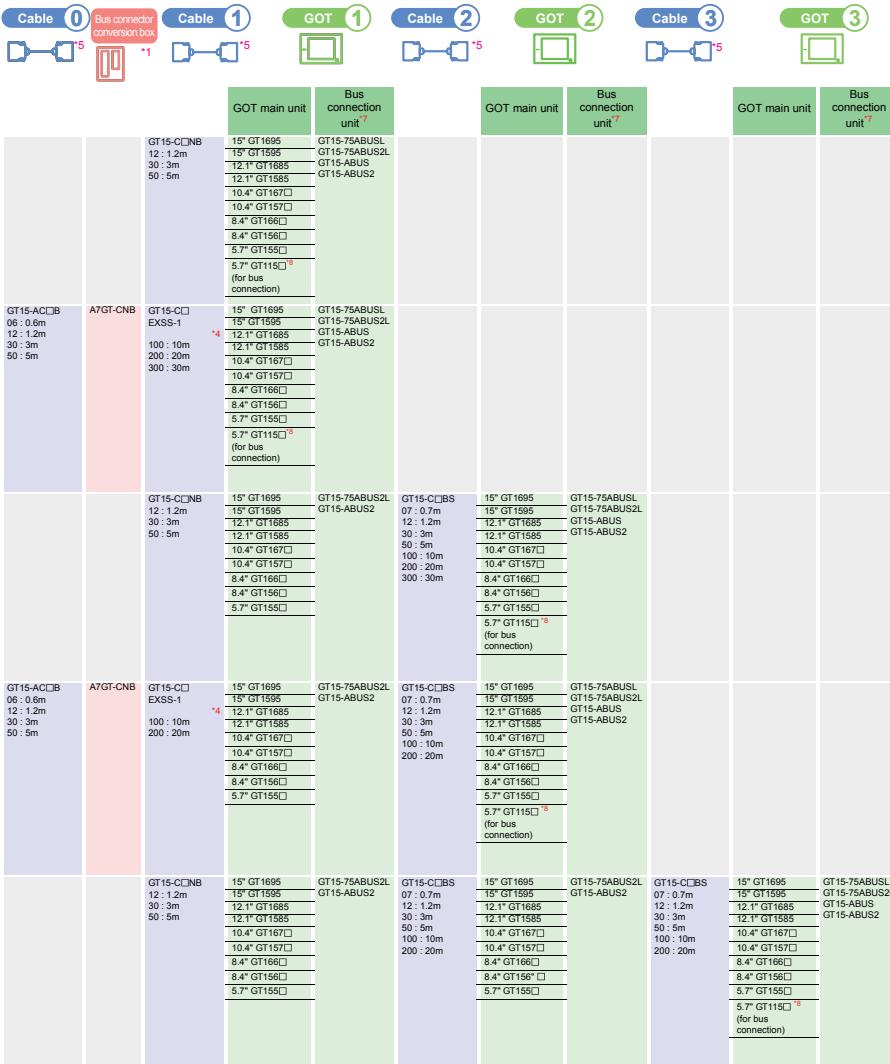
*3: When installing the 1st GOT 30m or more away from the main base unit, the bus connector conversion box is required.

*4: Select a cable to keep the total cable length between the main base unit of a programmable controller and a terminal GOT within 36.6m.

*For GT15-C_—EXSS-1

*Consisting of GT15-EXCNB (0.5m) and GT15-C_—BS (10 to 30m).

*When calculating the cable length, use GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), and GT15-C300EXSS-1 (30m).



*5: Indication of cable model (example) "GT15-A1SC□NB 05:0.45m"→GT15-A1SC05NB

*6: Select a cable to keep the total cable length within 30m.

*7: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2)L is not available.

Units for the multimedia function, Video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CF card unit, and CF card extension unit
For CT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.
*8: The bus connection unit is not required for CT11E-*x* (dedicated to the bus connection).

*8: The bus connection unit is not required for GT115□ (dedicated to the bus connection).

● When connecting to motion controller CPU (A171SHCPUN, A172SHCPUN, A173UHCPU(-S1)) without the extension base unit

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT	Connection distance
1	3m or less	
	3m or more 30m or less	
	3m or more 33m or less	
2	3m or less	
	3m or more 33m or less	
3	3m or less	

*1: When installing the 1st GOT 30m or more away from the main base unit, the bus connector conversion box is required.

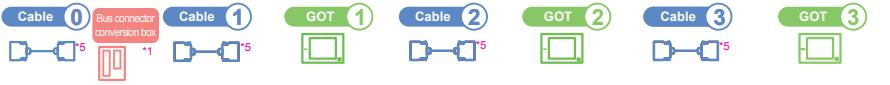
*2: Select a cable to keep the total cable length between the main base unit of a programmable controller and a terminal GOT within 33m.

*3: Select a cable to keep the total cable length within 30m.

*4: For GT15-C-EXSS-1

-Consisting of GT15-EXCNB (0.5m) and GT15-C-BS (10 to 30m).

-When calculating the cable length, use GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), and GT15-C300EXSS-1 (30m).



		GOT main unit	Bus connection unit ⁶		GOT main unit	Bus connection unit ⁶		GOT main unit	Bus connection unit ⁶
		GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115□ ⁷ (dedicated to bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
		GT15-C□EXSS-1 100 : 10m 200 : 20m 300 : 30m	15" GI1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115□ ⁷ (dedicated to bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
GT15-A1SC□NB 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1 100 : 10m 200 : 20m 300 : 30m	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115□ ⁷ (dedicated to bus connection)	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2					
		GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115□ ⁷ (dedicated to bus connection)	GT15-C□BS GT15-ABUS2	15" GT1695 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m 300 : 30m	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
GT15-A1SC□NB 05 : 0.45m 07 : 0.7m 30 : 3m 50 : 5m	A7GT-CNB	GT15-C□EXSS-1 100 : 10m 200 : 20m	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115□ ⁷ (dedicated to bus connection)	GT15-C□BS GT15-ABUS2	15" GT1695 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
		GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115□ ⁷ (dedicated to bus connection)	GT15-C□BS GT15-ABUS2	15" GT1695 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			
		GT15-A1SC□B 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m	15" GT1695 15" GT1595 12.1" GT1685 12.1" GT1585 10.4" GT167□ 10.4" GT157□ 8.4" GT166□ 8.4" GT156□ 5.7" GT155□ 5.7" GT115□ ⁷ (dedicated to bus connection)	GT15-C□BS GT15-ABUS2	15" GT1695 07 : 0.7m 12 : 1.2m 30 : 3m 50 : 5m 100 : 10m 200 : 20m	GT15-75ABUSL GT15-75ABUS2L GT15-ABUS GT15-ABUS2			

*5: Indication of cable model (example) "GT15-A1SC□NB 05:0.45m" → GT15-A1SC05NB

*6: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2)L is not available.

Units for the multimedia function, Video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CE card unit, and CE card extension unit.

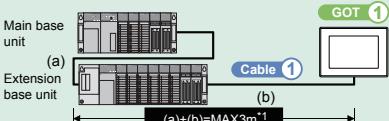
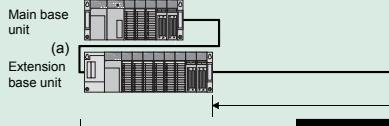
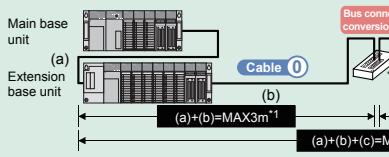
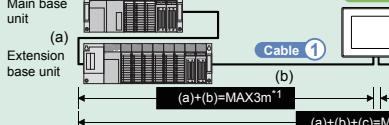
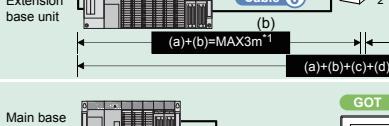
function, CF card unit, and CF card extension unit.

*7: The bus connection unit is not required for CT115- \square (dedicated to the bus connection).

*7: The bus connection unit is not required for GI 115□ (dedicated to the bus connection).

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● When connecting to motion controller CPU (A171SHCPUN, A172SHCPUN, A173UHCPU(-S1)) with the extension base unit

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT	Connection distance
1	3m or less	 
		
		
	3m or more	
		
		

1: The extension cable length (between the main base units) is included.

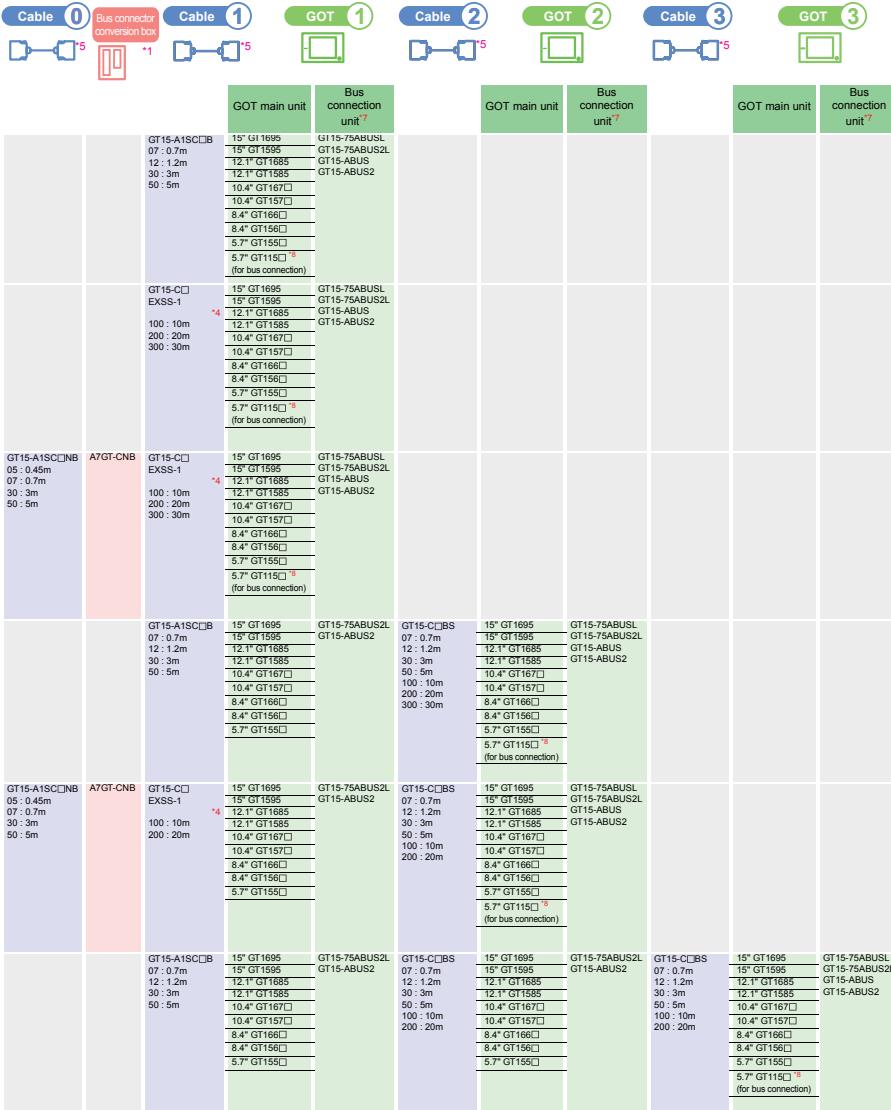
2: For the cable between the main base unit and extension base unit, refer to Mitsubishi Programmable Logic Controller MELSEC-Q (Catalog) (L(NA)-08033E).

3: Select a cable to keep the total cable length between the main base unit of a programmable controller and a terminal GOT within 33m.

* Consisting of GT15-EXCN8 (0.5m) and GT15-C1EBS (10 to 30m).

*When calculating the cable length, use GT15-C100EXSS-1 (10m), GT15-C200EXSS-1 (20m), and GT15-C300EXSS-1 (30m).





*5: Indication of cable model (example) "GT15-A1SC□NB 05:0.45m"→GT15-A1SC05N

- *6: Select a cable to keep the total cable length within 30m
- *7: Use the GT16 ARBUS(2) for mounting the following units

*7: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2)L is not available.

For the multimedia function, video/RGB display, RGB output, report function, hard copy function (when printing), Ethernet download, gateway function, MES interface function, CF card slot, and CF card extension slot.

*8: The bus connection unit is not required for GT115□ (dedicated to the bus connection)

[View Details](#) | [Edit](#) | [Delete](#)

●When connecting to A0J2HCPU

Max. number of GOTs connected
1

GOT connection conditions		System configuration
Number of GOTs connected	Mounting distance between main base unit and first GOT	Connection distance
1	1m or less	

*1: The power supply module is required when a GOT is connected.

*2: Indication of cable model (Example) GT15-2C1B10-1m—GT15-J2C10B

*3: Use the GT15-ABUS(2) for mounting the following units. GT15-75ABUS(2), is not available.

Units for the multimedia function, Video/RGB display, RGB output, report function, hardcopy function (when printing), Ethernet download, gateway function, MES interface function, CF card unit, and CF card extension

For GT16, however, Ethernet download, gateway function, and MES interface function are available using the Ethernet interface.

*4: The bus connection unit is not required for GT15(dedicated to the bus connection).

Precautions on bus connection

Setting stage No. and slot No. of GOT

1. GOT recognized by programmable controller

When a GOT is connected with bus connection, a programmable controller recognizes the GOT as shown below.

- QCPU (Q mode) :Intelligent function module with 16 I/O points
- Other than QCPU :Q(D) intelligence function module with 32 I/O points

2. I/O assignment

(1) Connecting to QCPU (Q mode)

Add one stage for connecting a GOT (16 points × 10 slots) and assign the GOT to the I/O slots.(The GOT cannot be assigned to empty I/O slots on the main base unit and extension base unit.)

Remarks I/O slots to which a GOT is not assigned can be set as empty slots (0 point). The I/O numbers of 16 points the number of the empty slots can be used for other devices. (Make settings in [PLC parameter] and then [I/O assignment] of GX Developer.)

Reference 9. Connecting to QCPU (Q mode) in "Precautions"

(2) Connecting to other than QCPU (Q mode)

Assign a GOT to the empty I/O slot on the extension base unit.

When there is no extension base unit or there is no empty slot on the extension base unit, add a new extension stage and assign a GOT to the I/O slot of the new stage. (The GOT cannot be assigned to empty I/O slots on the main base unit.)

Reference 10. Connecting to QnA(S)CPU type or An(S)CPU type in "Precautions"

Precautions

1. Turning on GOT

(1) Designing system

The programmable controller CPU remains reset until a GOT is started. A system where a GOT is started up by the sequence program cannot be designed.

(2) Time taken for programmable controller to be started after power-on of GOT

After a GOT is turned on, it takes approximately 10 seconds for the programmable controller to be started.

When a GOT is turned on, the timing of starting system or replacing an existing GOT with another GOT, take the programmable controller's start-up time into account and adjust the timings in the system.

(3) Power-on order for case that three or more GOTs are connected to QCPU (Q mode)

Reference 9. (1) Restrictions for total cable length to number of GOTs connected

(4) Power-on order for case that GOT is connected to redundant Q4ARCPU system

Reference 13. (2) Power-on order for case that GOT is connected to redundant Q4ARCPU system

(5) Power-on order for case other than (3) and (4)

The GOT can be started up first and the programmable controller can also be started up first.

(There is no specific order in which the both devices are turned on.) Note, however, that operation is as follows when the GOT is turned on before the programmable controller:

When a GOT is turned on while the programmable controller is off, a system alarm (No.402: timeout error) occurs. When the programmable controller is turned on, the GOT automatically restarts monitoring.

Result conform with the system information.

2. When a GOT is turned off or restarted (turned off and then on)

(1) Precautions for restarting (turning off and then on) a GOT

Do not restart (turn off and then on) a GOT while the programmable controller is turned on.

Be sure to turn off the programmable controller before restarting (turning off and then on) a GOT.

Remarks Operation that automatically reboots GOT1000 series

In GOT1000 series, a GOT is automatically rebooted for the following cases. It is not required to restart (turn off and on) the GOT.

● When OS is installed with GT Designer2 or the CF card

● When the utility settings are changed

(2) When a GOT is turned off before a user-created screen is displayed on the GOT

Communication may not be made when a GOT is turned off before a user-created screen is displayed on the GOT. In the above case, turn on a programmable controller and the GOT again.

(3) Power-on order for case that three or more GOTs are connected to QCPU (Q mode)

Reference 9. (1) Restrictions for total cable length to number of GOTs connected

3. Reset switch of GOT

The reset switch of the GOT does not operate with the bus connection.

4. When a programmable controller is turned off or reset

(1) When a programmable controller is turned off or reset during monitoring

When a programmable controller is turned off or reset during monitoring, a system alarm (No.402: timeout error) occurs. When the programmable controller is restored, a GOT automatically restarts monitoring. Reset the alarm with the system information.

(2) When a programmable controller is turned off or reset before a user-created screen is displayed on the GOT

Communication may not be made when a programmable controller is turned off or reset before a user-created screen is displayed on the GOT. In the above case, turn on a programmable controller and the GOT again.

(3) Power-on order for case that three or more GOTs are connected to QCPU (Q mode)

Reference 9. (1) Restrictions for total cable length to number of GOTs connected

5. Connecting location of GOT

A GOT must be connected to the base unit at the last stage of the system.

The GOT cannot be connected between the base units.

6. When a GOT is connected to a programmable controller CPU with bus connection without the communication driver installed

When a GOT is connected to a programmable controller CPU with the bus connection without the standard monitor OS and the communication driver for bus connection installed, the programmable controller CPU is reset. (The GOT cannot communicate to the programmable controller with GX Developer or other software.) In the above case, reset of the programmable controller is canceled when the bus connection cable of the GOT is removed.

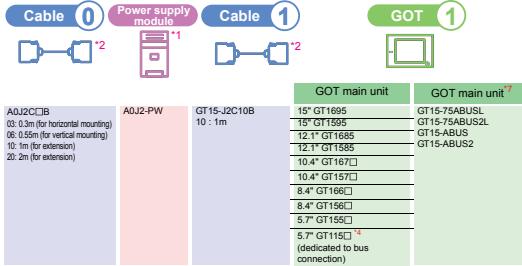
7. Designing system

The current listed below is supplied from a programmable controller (the power supply module of the main base unit) to a GOT when the GOT is turned off. (The GOT is not activated when the GOT is turned off.) The total output current of a power supply module to be used at 5VDC includes the currents consumed by a module mounted on the main base unit at 5VDC and consumed by a GOT. Design a system to keep the total of the currents below the rated output current.

8. When the I/O signals of a GOT are assigned

The I/O signals assigned to a programmable controller are used on a GOT system. Do not use the I/O signals in a sequence program. Otherwise, functions of the GOT cannot be guaranteed.

Target CPU	Number of GOTs connected	Total current consumption
Connecting to QCPU (Q mode)	5	2200mA
	4	1760mA
	3	1320mA
	2	960mA
Connecting to CPU other than QCPU (Q mode)	1	440mA
	3	360mA
	2	240mA
	1	120mA



9. Connecting to QCPU (Q mode)

(1) Restrictions for total cable length to number of GOTs connected

There are the following restrictions when three or more GOTs are connected.

Number of GOTs connected	Total cable length			
	15m or less	15 to 20m or less	20 to 25m or less	25 to 37m or less
1	○	○	○	○
2	○	○	○	○
3	○	○	○	△
4	○	○	△	△
5	○	△	△	△

○: There are no restrictions.

△: Use the same power supplies of a programmable controller and all GOTs and turn on or off all the power supplies simultaneously.

(2) When using Q00JCPU or Q00UCPU

The bus extension connector box can be connected only to the extension base unit.

(The bus extension connector box cannot be mounted on the main base unit.)

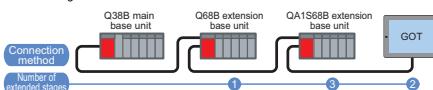
(3) When using Q00J/Q00/Q01/Q02U/Q00UJ/Q00U/Q01UCPU

When the GOT is connected to the Q00JCPU with the bus connection, the number of extension stages including the GOT must be two or less.

When the GOT is connected to the Q00CPU, Q1CPU or Q2UCPU with the bus connection, the number of extension stages including the GOT must be four or less.

(4) When using QA1S6□B extension base unit

Though the GOT is physically connected behind all the extension base units, assign the GOT to the stage right behind the QA1S6□B extension base unit in the extension stage number setting. Assign the QA1S6□B extension base unit as a stage next to the GOT.



10. Connecting to QnA(S)CPU type or An(S)CPU type

(1) Connecting to QnA(S)CPU type or An(S)CPU type

A GOT can be connected to an extension connector on only one side of the main base unit. (GOTs cannot be connected simultaneously to the extension connectors on both sides.)

(2) When using Q4A(R)CPU, Q3ACPU, A□CPU or A4UCPU

At least one empty slot for an I/O module is required in a programmable controller system.

(3) When using A0JHCPU

Assign the GOT to the I/O slots 0 to 3 of the first extension stage.

(4) When using CPUs other than CPUs of (2) and (3)

Even if the maximum number of stages are used with no empty I/O slots, when there is a free space of 32 I/O points or more, a GOT can be connected with the following communication interface setting.

Target CPU	Max. stage No.	Communication interface setting	
		Stage No.	Slot No.
A1□CPU/A2U(S)CPU-S1)	1	2	0
A2□CPU/Q2ACPU	3	4	0
A3□CPU/A4ICPU	7		
Q3ACPU/Q4ACPU	7		Disabled
A0JHCPU	1		

11. Connecting multiple GOTs

(1) System including different GOT series

The GOT1000 series cannot be used with different GOT series in a system.

(2) Restrictions on number of GOTs connected

There are restrictions on the number of GOTs connected depending on the target CPU and the number of intelligent function modules mounted.

Target CPU	Number of connectable GOTs	Total number of connectable GOTs and intelligent function modules*
QCPU (Q mode)/Motion controller CPU (Q series)	5	5 GOTs and 6 intelligent function modules*
QnACPU (A mode)	Not connectable	-
ACPU	3	6 in total
AnCPU, AnHCPU, A2US(H)CPU	3	6 in total
ACPU, AnHCPU, A1SJ(H)CPU	2	2 in total
AUDCPU	1	2 in total
A15CPU	Not connectable	-
Motion controller CPU (A series)	3	6 in total
A17SHCPU, A17SCPU, A17SPCPU	2	2 in total

*1: The following shows the models of connectable intelligent function modules.
AD51(S3), AD51H(S), AD51FD(S), AD57(G3), AJ71C21(S1), AJ71C22(S1), AJ71C23(S1), AJ71C43(S3/S5/S8), AJ71E11(S1), AJ71E11(S2), AJ71E12(S2/S5/S7/S8), AJ71E17N3-1, AJ61BT1 (only for the QnACPU model), AJ71TC42(S2/P3/R4), AJ5171UC24(S2/P3/R4), AJ5171UC25(S2/P3/R4), AJ5171E17-1/B2(B5/S3), AJ5171E17-1/B2(B7/B5), AJ5171E17N3-1, AJ51D01S, AJ51B1PFT1 (only for the intelligent mode).

*2: ATSD51S is the only intelligent function module that can be connected to a QCPU (Q mode).

12. When using programmable controller CPU in direct mode

When the I/O control mode of the programmable controller CPU is the direct mode, and if the first GOT is connected to the main or extension base unit with a 5m extension cable (GT15-AC50B, GT15-A1SC50NB), the input X of the empty I/O slot cannot be used.

No restrictions apply when the I/O control mode is the refresh mode.

On programmable controller CPUs whose I/O control mode can be selected by a switch, set the I/O control mode to the refresh mode before use.

Remarks

Examples of using input X of an empty I/O slot

•When input X is assigned on the MELSENET/10 network

•When input X of an empty I/O slot is turned on or off by the computer link module

•When input X of an empty I/O slot is turned on or off by the touch switch function (Bit SET/RST/Alternate/Momentary) of a GOT

13. Connecting to redundant Q4ARCPU system

(1) Connecting to redundant Q4ARCPU system with bus connection

Connect a GOT to the last redundant extension base unit (A68RB) of the redundant Q4ARCPU system.

For the redundant extension base units, use version B or later.

The version can be confirmed in the DATE field of the rating plate.

Remarks

Precautions for redundant Q4ARCPU system configurations

The GOT does not operate normally in the following system configurations.

•When the GOT is connected to the bus switching module (A6GRAF) on the redundant main base unit (A32RB/A33RB) with the bus connection

•When the GOT is connected to the version A redundant extension base unit (A68RB) with the bus connection

(2) Power-on order for GOT and redundant Q4ARCPU system

Turn on the GOT and Q4ARCPU redundant system in the following order.

1) Turn on the GOT.

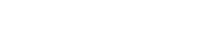
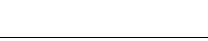
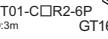
2) After the monitor screen is displayed on the GOT, turn on the redundant Q4ARCPU system. A timeout error is displayed on the system alarm. Reset the alarm with the system information.

4.1.4 Direct CPU connection

● QCPU/C controller/LCPU/Motion controller CPU (Q series)/CNC C70/Robot controller



1) RS-232

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> QCPU*4 C controller *1*3*9 LCPU Motion controller CPU (Q series)*3*11 CNC C70*2*3 CRnQ-700*2*3 MELSECNET/H remote I/O station*2     	 <p>GT01-C□R2-6P 30:3m</p>	<p>Not required Built in GOT</p> <p>RS-232</p>  <p>GT15-RS2-9P</p>	 <p>GT16/GT15</p>
		<p>Not required Built in GOT</p>	 <p>GT11</p>
		<p>Not required Built in GOT</p>	 <p>GT105□/GT104□</p>
		<p>RS-232</p>  <p>GT01-RS4-M</p>	<p>*7</p> <p>For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.</p>
	 <p>GT10-C□R2-6P 30:3m</p>	<p>Not required Built in GOT</p>	 <p>GT1030/GT1020</p>
	 <p>GT01-□R2-6P 30:3m</p> <p>GT16H-C□-42P 30:3m</p> <p>Connector conversion box</p> <p>External connection</p>	<p>Not required Built in GOT</p>	 <p>GT16 Handy</p>
	 <p>GT11H-C□R2-6P 15:1.5m (A cable exceeding 1.5m should be created by the user.)</p> <p>External connection</p>		 <p>GT11 Handy</p>
	 <p>GT11H-C□-37P 30:3m</p> <p>Connector conversion box</p> <p>D-sub 9-pin</p> <p>GT11H-C□R2-6P 30:3m</p> <p>GT11H-CN8-37S</p>	<p>Not required Built in GOT</p>	 <p>GT11 Handy</p>

*1: Available only for GT16, GT15, GT11, and Handy GOT.

*2: Available only for GT16, GT15, GT11, Handy GOT, and GT SoftGOT

*3: Configure the multiple CPU system.

*4: When connecting to Q_{UDE(H)CPU}, configure the multiple CPU system.

*7: Available only for QCPU.

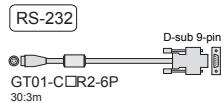
*8: Only Q170MCPU program

*9: Use a model whose the first five digits of the serial number are 12042 or later.
*10: For the direct CPU connection, the cable LSAPP-B2 is required.

*10: For the direct CPU connection, the adapter L6ADP-R2 is required.
*11: Available only for CT16, CT15, CT11, CT10, and Handy-CT.

*11: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

ANSWER The answer is 1000.

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> • QCPU^{*15} • C controller^{*12*14*19} • LCPU^{*20} • Motion controller CPU (Q series)^{*14*21} • CNC C70^{*13*15} • CRnQ-700^{*13*15} • MELSECNET/H remote I/O station^{*13} 		<p>Not required Built in personal computer</p> <p>Commercially-available RS-232 board</p>	 <p>DOS/V personal computer + License key for GT SoftGOT1000</p>	<p>Max. number of personal computers connected 1 or 2^{*17} Max. connection distance 3 m</p>
		<p>Programmable controller CPU + PC CPU module^{*16}</p> 	 <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>	<p>Max. number of personal computers connected 1 or 2^{*17} Max. connection distance 3 m</p>

*12: Available only for GT16, GT15, GT11, and Handy GOT.

*13: Available only for GT16, GT15, GT11, Handy GOT, and GT SoftGOT

*14: Configure the multiple CPU system.

*15: When connecting to Q-UD(E)CPU, configure the multiple CPU system.

*16: Connect the PC CPU module to a programmable controller CPU on any of the other main base units.

*17: For using RS-232 and USB connections at the same time

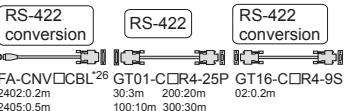
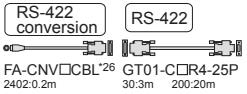
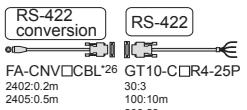
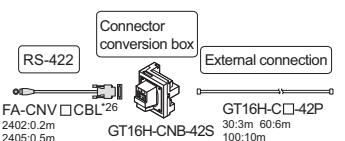
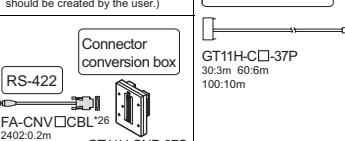
*18: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

*19: Use a model whose the first five digits of the serial number are 12042 or later.

*20: For the direct CPU connection, the adapter L6ADP-R2 is required.

*21: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

2) RS-422

Target device	Cable	Communication unit	GOT	
QCPU ^{*24} LCPU ^{*27} Motion controller CPU (Q series) ^{*23~*28} CNC C70 ^{*22~*23} CRNQ-700 ^{*22~*23} MELSECNET/H remote I/O station ^{*22} 	 <p>RS-422 conversion RS-422 RS-422 conversion</p> <p>FA-CNV□CBL^{*26} GT01-C□R4-25P GT16-C□R4-9S 2402:0.2m 30:3m 200:20m 02:0.2m 2405:0.5m 100:10m 300:30m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16</p>	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 30.7 m</p>
	 <p>RS-422 conversion RS-422</p> <p>FA-CNV□CBL^{*26} GT01-C□R4-25P 2402:0.2m 30:3m 200:20m 2405:0.5m 100:10m 300:30m</p>	<p>RS-422 conversion^{*25}</p> <p>GT15-RS2T4-9P</p>	 <p>GT16</p>	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 30.5 m</p>
		<p>RS-422/485</p> <p>GT15-RS4-9S</p>	 <p>GT16/GT15</p>	
		<p>Not required</p> <p>Built in GOT</p>	 <p>GT11</p>	
		<p>Not required</p> <p>Built in GOT</p>	 <p>GT105□/GT104□</p>	
	 <p>RS-422 conversion RS-422</p> <p>FA-CNV□CBL^{*26} GT10-C□R4-25P 2402:0.2m 30:3 2405:0.5m 100:10m 200:20m 300:30m</p>	<p>RS-422</p> <p>GT01-RS4-M</p>	<p>For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.</p>	
		<p>Not required</p> <p>Built in GOT</p>	 <p>GT1030/GT1020</p>	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 30.5 m</p>
	 <p>Connector conversion box</p> <p>External connection</p> <p>FA-CNV□CBL^{*26} GT16H-C□-42P 2402:0.2m 30:3m 60:6m 2405:0.5m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16 Handy</p>	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 13.5 m</p>
	 <p>External connection</p> <p>GT11H-C□-37P 30:3m 60:6m 100:10m</p> <p>Relay</p> <p>CT11H-C□R4-25P 15: 1.5m (A cable exceeding 1.5m should be created by the user.)</p> <p>FA-CNV□CBL^{*26} GT11H-CNB-37S 2402:0.2m 30:3m 2405:0.5m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT11 Handy</p>	

*22: Available only for GT16, GT15, GT11, and Handy GOT.

*23: Configure the multiple CPU system.

*24: When connecting to Q□UDE(H)CPU, configure the multiple CPU system.

*25: For using GT15□-9, use GT15-RS4-9S.

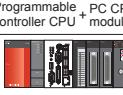
*26: The FA-CNV□CBL is Recommended Product.

Purchase the cable from MITSUBISHI ELECTRIC ENGINEERING CO., LTD.

*27: For the direct CPU connection, the adapter L6ADP-R2 is required.

*28: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

3) USB

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> · QCPU^{*30} · LCPU^{*34} · CNC C70^{*29} · CRnQ-700^{*29} 	 USB A type ^{*31} QCPU other than the Universal model USB2-30 AU2-30	<p>Not required</p> <p>Built in personal computer</p>	 DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 1 or 2 ^{*32} Max. connection distance 3 m
	Universal model QCPU MR-J3USBCBL3M GT09-C3OUSB-5P USB-M53 USB2-30+AD-USBBFTM5M AU2-30+AUXUBM5 ZUM-430	 Programmable controller CPU + PC CPU module ^{*33}	 GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 1 or 2 ^{*32} Max. connection distance 3 m

*29: Configure the multiple CPU system.

*30: When connecting to Q7UDE(H)CPU, configure the multiple CPU system.

*31: The USB communication cable is Recommended Product. Purchase the cable from ELECOM CO., LTD, ARVEL CORP or LOAS CO., LTD.

*32: For using RS-232 and USB connections at the same time

*33: Connect the PC CPU module to a programmable controller CPU on any of the other main base units.

*34: For the direct CPU connection, the adapter L6ADP-R2 is required.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT105□	RS-232 or RS-422 connections	GT105□-Q□BD
GT104□	RS-232 or RS-422 connections	GT104□-Q□BD
GT10	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	RS-422 connection	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Precautions

■ Other precautions

- For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.
- When connecting to motion controller CPU (Q series)
 - For Q172CPU or Q173CPU
 - (1) Use the motion controller CPU with the following production numbers.
Q172CPU with K***** or later, Q173CPU with J***** or later
 - (2) For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00E or later, SW6RN-SV22Q□: 00E or later, SW6RN-SV43Q□: 00B or later
 - For Q172CPUN or Q173CPUN
 - For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later
- When connecting GT16, GT15, GT11, and Handy GOT to a motion controller CPU (Q series) other than Q170MCPU, CNC C70, or CRnQ-700.
Connect the GOT to a motion controller CPU (Q series) other than Q170MCPU, CNC C70, or CRnQ-700 via the RS-232 interface of the QCPU in the multiple CPU system.
- When connecting GT SoftGOT1000 to CNC C70 or CRnQ-700
Connect GT SoftGOT1000 to CNC C70 or CRnQ-700 via the RS-232 or USB interfaces of the QCPU in the multiple CPU system.

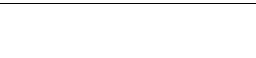
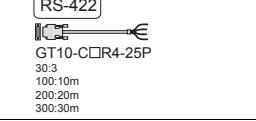
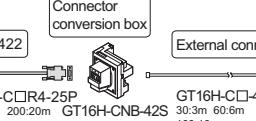
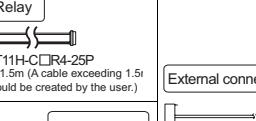
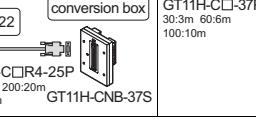
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of direct CPU connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 6 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 19 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
-  Chapter 22 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
-  Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

● QnA/ACPU/Motion controller CPU (A series)

System configuration

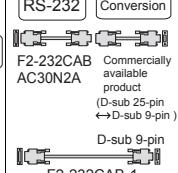
1) RS-422

Target device	Cable	Communication unit	GOT
	 <p>GT01-C□R4-25P 30:3m 200:20m 100:10m 300:30m</p> <p>GT16-C□R4-9S 02:0.2m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16</p> <p>Max. number of GOTs connected 1 Max. connection distance 30.2 m</p>
	 <p>GT15-RS2T4-9P</p>	<p>RS-422 conversion *2</p> <p>GT15-RS2T4-9P</p>	 <p>GT16/GT15</p> <p>Max. number of GOTs connected 1 Max. connection distance 30 m</p>
	 <p>GT01-C□R4-25P 30:3m 200:20m 100:10m 300:30m</p>	<p>RS-422/485</p> <p>GT15-R4-9S</p> <p>Not required</p> <p>Built in GOT</p>	 <p>GT11</p>
		<p>Not required</p> <p>Built in GOT</p>	 <p>GT105□/GT104□</p>
	 <p>GT01-RS4-M</p>	<p>RS-422 *3</p> <p>GT01-RS4-M</p> <p>For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.</p>	 <p>GT1030/GT1020</p> <p>Max. number of GOTs connected 1 Max. connection distance 30 m</p>
	 <p>GT01-C□R4-25P 30:3m 200:20m 100:10m</p> <p>GT16H-C□-42P 30:3m 60:6m 100:10m</p>	<p>Connector conversion box</p> <p>External connection</p> <p>Not required</p> <p>Built in GOT</p>	 <p>GT16 Handy</p>
	 <p>GT11H-C□R4-25P 15.1.5m (A cable exceeding 1.5m should be created by the user.)</p> <p>GT11 Handy</p>	<p>Relay</p> <p>External connection</p> <p>Not required</p> <p>Built in GOT</p>	 <p>GT11 Handy</p> <p>Max. number of GOTs connected 1 Max. connection distance 13 m</p>
	 <p>GT01-C□R4-25P 30:3m 200:20m 100:10m</p> <p>GT11H-C□-37P 30:3m 60:6m 100:10m</p>	<p>Connector conversion box</p> <p>External connection</p> <p>Not required</p> <p>Built in GOT</p>	

* 1: Available only for GT16, GT15, GT11, Handy GOT, and GT SoftGOT1000

* 2: For using GT15□, use GT15-RS-4-9S.

* 3: Available only for ACPU.

Target device	Cable	Communication unit	GOT
• QnA • ACPU • Motion controller ^{*4} CPU (A series)	 <p>RS-422 RS-422 converter</p> <p>FX-422CAB FX-232AW FX-232AWC</p>  <p>F2-232CAB AC30N2A Commercially available product (D-sub 25-pin ↔ D-sub 9-pin)</p> <p>F2-232CAB-1 D-sub 9-pin</p>	<p>Not required Built in personal computer</p> <p>Commercially-available RS-232 board</p>	 <p>DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000</p> <p>Max. number of personal computers connected 1 Max. connection distance 15 m</p>
			GOT
		<p>Programmable + PC CPU controller CPU module^{*5}</p> <p>Commercially-available RS-232 board</p>	 <p>Programmable + PC CPU controller CPU module^{*5}</p> <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p> <p>Max. number of personal computers connected 1 Max. connection distance 15 m</p>
			GOT
		<p>Not required Built in personal computer</p> <p>Commercially-available RS-232 board</p>	 <p>DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000</p> <p>Max. number of personal computers connected 1 Max. connection distance 15 m</p>
			GOT
		<p>Programmable + PC CPU controller CPU module^{*8}</p> <p>Commercially-available RS-232 board</p>	 <p>Programmable + PC CPU controller CPU module^{*8}</p> <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p> <p>Max. number of personal computers connected 1 Max. connection distance 15 m</p>
			GOT

*4: Available only for GT16, GT15, GT11, Handy GOT, and GT SoftGOT1000.

*5: Recommended Product. Purchase the cable from Diatrend Corporation.

*6: Keep the cable length of DCR4-003 (D-sub 25-pin ↔ D-sub 25-pin) below 3m.

*7: When using DCNV9F-RS42R⁷, be sure to ground the FG terminal of a programmable controller system.

*8: Connect the PC CPU module to another programmable controller.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD, GT115□-Q□BDA
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	RS-232 or RS-422 connections	GT105□-Q□BD
	RS-232 or RS-422 connections	GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW, GT1020-L□D2/L□DW2
	RS-422 connection	GT1030-L□DL□DW, GT1030-L□UL□LW, GT1020-L□DL□DW, GT1020-L□UL□LW (For GT1030-L□UL□LW, GT1020-L□UL□LW, MELSEC-FXCPU connection is available only.)

Precautions

Precautions on system

- When connecting the motion controller (A series) to GT SoftGOT1000, simultaneous connection with other MELSOFT products (such as GX Developer) is not allowed.
- The motion controller (A series) cannot be connected to the remote I/O station.

Other precautions

- When monitoring MELSEC-A series (AnCPU type)^{*1}, MELSEC-A series (AnSCPU type)^{*2}, or MELSEC-A series^{*3}, data can be written to only CPUs with the following software version or later.

The earlier software version is not available.

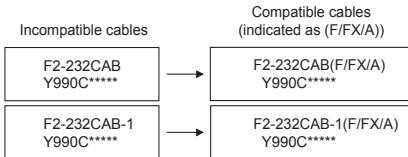
- AnNCPU (S1): Version L or later for the one with link, version H or later for the one without link
 - A2SCPU: Version H or later
 - A0J2HCPU (With/without link): Version E or later
 - A0J2HCPU-DC24: Version B or later
 - A2CCPU: Version H or later
- *1: When connecting to A1NCPU, A1NCPUP21, A1NCPUR21, A2NCPU, A2NCPUP21, A2NCPUR21, CA2NCPU-S1, A2NCPUP21-S1, A2NCPUR21-S1, A3NCPU, or A3NCPUP21
- *2: When connecting to A2SCPU or A2SCPU-S1
- *3: When connecting to A0J2HCPU, A0J2HCPUP21, A0J2HCPUR21, A0J2HCPU-DC24, or A2CCPU

- When connecting or disconnecting converter/cable for GT SoftGOT1000

- When connecting or disconnecting converter/cable that receives 5VDC power
When connecting or disconnecting the converter/cable that receives 5VDC power from a programmable controller, power off the programmable controller and start working.
- When connecting or disconnecting converter/cable that does not receive 5VDC power
When connecting or disconnecting peripheral devices and the cables that do not receive 5VDC power from a programmable controller (receives the power from an external power supply), follow the procedure as below.
 - Be sure to use an earth band or touch a grounded metal object before working to discharge the static electricity from the cables, human body, and others.
 - Power off the personal computer.
 - Power off the converter. When the converter/cable have an FG terminal, ground it.
 - Connect/disconnect the converter/cable between the personal computer and programmable controller.
 - Power on the converter.
 - Power on the personal computer.
 - Start up the software package.

- Use a RS-232 cable (F2-232CAB or F2-232CAB-1) applicable to the QnACPU or ACPU (For GT SoftGOT1000).

For distinguishing cables applicable to the QnACPU and ACPU, check the indication of the model label on the cable. (Inapplicable cables are not available.)





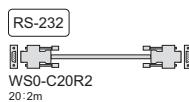
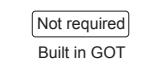
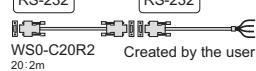
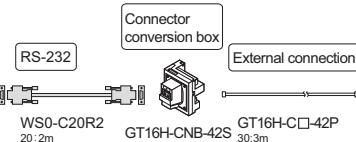
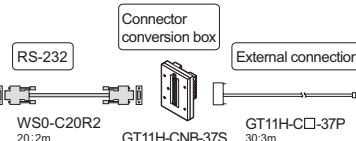
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of direct CPU connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 6 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 19 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 22 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
 - Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

● WSCPU

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT	
 · WSCPU	 RS-232	 Built in GOT	 GT16/GT15	Max. number of GOTs connected 1 Max. connection distance 3 m
	 RS-232 GT15-RS2-9P	 Built in GOT	 GT11	
	 RS-232	 Built in GOT	 GT105/GT104	
	 RS-232 RS-232 WS0-C20R2 20:2m Created by the user	 Built in GOT	 GT1030/GT1020	
	 RS-232 WS0-C20R2 20:2m Connector conversion box GT16H-CNBT-42P 30:3m	 Built in GOT	 GT16 Handy	Max. number of GOTs connected 1 Max. connection distance 3 m
	 RS-232 WS0-C20R2 20:2m Connector conversion box GT11H-CNBT-37P 30:3m	 Built in GOT	 GT11 Handy	

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT105□	RS-232 or RS-422 connections	GT105□-Q□BD
GT104□	RS-232 or RS-422 connections	GT104□-Q□BD
GT10	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	GT1030 GT1020	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)
RS-422 connection		

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of direct CPU connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 6 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 19 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
-  Chapter 22 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

● FX series (FX1s, FX1N, FX2N, FX1NC, FX2NC)

System configuration

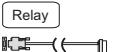
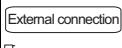
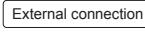
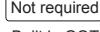
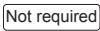
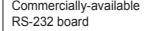
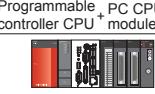
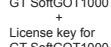
1) RS-232

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> ·FX1S ·FX1N ·FX2N <p>Function expansion board FX□N-232-BD</p> <p>Function adapter FX2NC-232ADP FX0N-232ADP</p> <ul style="list-style-type: none"> ·FX1NC ·FX2NC <p>Function adapter FX2NC-232ADP</p> <p>Function adapter FX0N-232ADP</p>	<p>RS-232</p> <p>GT01-C□R2-9S¹ 30.3m</p> <p>GT01-C□R2-25P² 30.3m (A cable exceeding 3m should be created by the user.)</p>	Not required Built in GOT	GT16/GT15
		RS-232 GT15-RS2-9P	Max. number of GOTs connected 1* ³ Max. connection distance 15 m
		Not required Built in GOT	GT11
		Not required Built in GOT	GT105□/GT104□
<ul style="list-style-type: none"> ·FX1NC ·FX2NC <p>Function adapter FX2NC-232ADP</p>	<p>RS-232</p> <p>Created by the user</p>	Not required Built in GOT	GT1030/GT1020
		RS-232 GT01-RS4-M	Max. number of GOTs connected 1* ³ Max. connection distance 15 m
<ul style="list-style-type: none"> ·FX1NC ·FX2NC <p>Function adapter FX2NC-232ADP</p>	<p>RS-232</p> <p>GT01-C□R2-9S¹ 30.3m</p> <p>GT01-C□R2-25P² 30.3m (A cable exceeding 3m should be created by the user.)</p> <p>Connector conversion box</p> <p>External connection GT16H-C□-42P 30.3m</p>	Not required Built in GOT	GT16 Handy
			Max. number of GOTs connected 1 Max. connection distance 6 m

*1: FX1S, FX1N, FX2N.... When using the function expansion board (FX□N-232-BD) or the function adapter (FX2NC-232ADP)
FX1NC, FX2NC..... When using the function adapter (FX0N-232ADP)

*2: When using the function adapter (FX0N-232ADP)

*3: When using the function expansion board indicated in *1 or *2 or the function adapter

Target device	Cable	Communication unit	GOT	
·FX1S ·FX1N ·FX2N	 Created by the user   GT01-C□R2-9S ⁴ 30:3m  GT11H-C□-37P 30:3m  	 Built in GOT		Max. number of GOTs connected 1 Max. connection distance 6 m
Function expansion board FX□N-232-BD				
Function adapter FXNC-232ADP FX0N-232ADP				
·FX1NC ·FX2NC	  GT01-C□R2-9S 30:3m (A cable exceeding 3m should be created by the user.)   GT01-C□R2-25P ⁶ 30:3m (A cable exceeding 3m should be created by the user.)	 Built in personal computer 	 DOS/V personal computer + License key for GT SoftGOT1000	Max. number of personal computers connected 1 Max. connection distance 4.5 m
Function adapter FX2NC-232ADP			GOT	
Function adapter FX0N-232ADP				
		 ⁷		Max. number of personal computers connected 1 Max. connection distance 4.5 m

*4: FX1S, FX1N, FX2N... When using the function expansion board (FX□N-232-BD) or the function adapter (FXNC-232ADP)
FX1NC, FX2NC When using the function adapter (FX0N-232ADP)

*5: When using the function adapter (FX0N-232ADP)

*6: When using the FX0N-232ADP, connect the D-sub 9-pin cable to the PC.

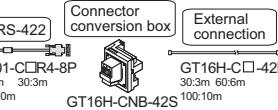
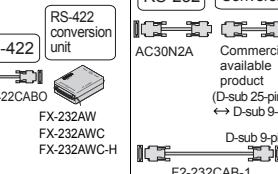
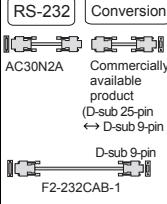
When using the FX□N-232-BD and FXNC-232ADP, connect the D-sub 25-pin cable to the PC.

*7: Connect the PC CPU module to another programmable controller.

2) RS-422

Target device	Cable	Communication unit	GOT
·FX1S ·FX1N ·FX2N		Not required Built in GOT	 GT16
Function expansion board 		RS-422 conversion ⁸ GT15-RS2T4-9P	 GT16/GT15
·FX1NC ·FX2NC		Not required Built in GOT	 GT11
		Not required Built in GOT	 GT105[G]/GT104[G]
		Not required Built in GOT	 GT1030/GT1020
		For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.	

⁸: Use GT15-RS4-9S for using GT15□ .*9: FX1S, FX1N, FX2N.... When used with the function expansion board (FDN-422-BD)
FX1NC, FX2NC Only one GOT can be connected for the RS-422 connection.

Target device	Cable	Communication unit	GOT	
·FX1S ·FX1N ·FX2N Function expansion board FXDN-422-BD	 <p>GT01-CLR4-8P 10:1m 30:3m 100:10m</p> <p>GT16H-C□R4-42P 30:3m 60:6m 100:10m</p> <p>GT16H-CNB-42S</p>  <p>GT11H-C□R4-8P 15:1.5m (A cable exceeding 1.5m should be created by the user.)</p>  <p>GT01-CLC-R4-8P 10:1m 30:3m 100:10m</p> <p>GT11H-C□-37P 30:3m 60:6m 100:10m</p> <p>GT11H-CNB-37S</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16 Handy</p>	Max. number of GOTs connected 1 Max. connection distance 13 m
·FX1NC ·FX2NC	 <p>RS-422 conversion unit</p> <p>FX-422CABO</p> <p>FX-232AW FX-232AWC FX-232AWC-H</p>	<p>External connection</p> <p>GT11H-C□-37P 30:3m 60:6m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT11 Handy</p>
		 <p>RS-232</p> <p>AC30N2A</p> <p>Conversion</p> <p>Commercially available product (D-sub 25-pin ↔ D-sub 9-pin)</p> <p>D-sub 9-pin</p> <p>F2-232CAB-1</p>	<p>Not required</p> <p>Built in personal computer</p> <p>Commercially-available RS-232 board</p>	 <p>DOS/V personal computer + License key for GT SoftGOT1000</p>
			<p>Programmable + PC CPU controller CPU module</p> <p>*10</p> <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>	Max. number of personal computers connected 1 Max. connection distance 4.5 m

*10: Connect the PC CPU module to another programmable controller.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□-HS-Q□BD
GT10	RS-232 or RS-422 connections	GT105□-Q□BD
	GT104□	GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	GT1030 GT1020	GT1030-L□D/L□DW, GT1030-L□L/L□DW, GT1020-L□D/L□DW, GT1020-L□L/L□DW (For GT1030-L□L/L□DW, GT1020-L□L/L□DW, MELSEC-FXCPU connection is available only.)

Precautions

Precautions on setup

- When connecting or disconnecting converter/cable for GT SoftGOT1000
 - When connecting or disconnecting converter/cable that receives 5VDC power
 - When connecting or disconnecting the converter/cable that receives 5VDC power from a programmable controller, power off the programmable controller and start working.
 - When connecting or disconnecting converter/cable that does not receive 5VDC power
 - When connecting or disconnecting peripheral devices and the cables that do not receive 5VDC power from a programmable controller (receives the power from an external power supply), follow the procedure as below.
 - 1) Be sure to use an earth band or touch a grounded metal object before working to discharge the static electricity from the cables, human body, and others.
 - 2) Power off the personal computer.
 - 3) Power off the converter. When the converter/cable have an FG terminal, ground it.
 - 4) Connect/disconnect the converter/cable between the personal computer and programmable controller.
 - 5) Power on the converter.
 - 6) Power on the personal computer.
 - 7) Start up the software package.

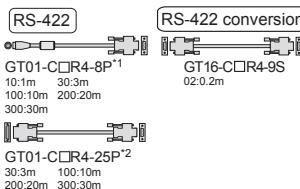
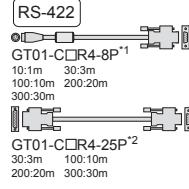
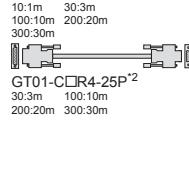
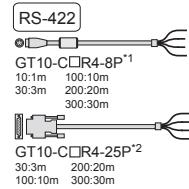
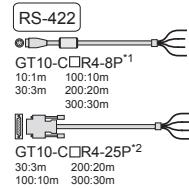
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of direct CPU connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- ▶ Chapter 6 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 19 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
- ▶ Chapter 22 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)
- ▶ Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

● FX series (FX0, FX0S, FX0N, FX1, FX2, FX2C)

System configuration

1) RS-422

Target device	Cable	Communication unit	GOT	
	 <p>RS-422</p> <p>GT01-C□R4-8P¹ 10:1m 30:3m 100:10m 200:20m 300:30m</p> <p>GT01-C□R4-25P² 30:3m 100:10m 200:20m 300:30m</p> <p>RS-422 conversion</p> <p>GT16-C□R4-9S 02:0.2m</p>	<p>Not required</p> <p>Built in GOT</p>		Max. number of GOTs connected 1 Max. connection distance 30.2 m
<ul style="list-style-type: none"> • FX0 • FX0S • FX0N 	 <p>RS-422</p> <p>GT01-C□R4-8P¹ 10:1m 30:3m 100:10m 200:20m 300:30m</p> <p>GT01-C□R4-25P² 30:3m 100:10m 200:20m 300:30m</p>	<p>RS-422 conversion</p> <p>GT15-RS2T4-9P</p> <p>RS-422/485</p> <p>GT15-RS4-9S</p> <p>Not required</p> <p>Built in GOT</p>		Max. number of GOTs connected 1 Max. connection distance 30 m
<ul style="list-style-type: none"> • FX1⁴ • FX2⁴ • FX2C⁴ 	 <p>RS-422</p> <p>GT01-C□R4-8P¹ 10:1m 30:3m 100:10m 200:20m 300:30m</p> <p>GT01-C□R4-25P² 30:3m 100:10m 200:20m 300:30m</p> <p>Not required</p> <p>Built in GOT</p>		Max. number of GOTs connected 1 Max. connection distance 30 m	
		<p>Not required</p> <p>Built in GOT</p>		Max. number of GOTs connected 1 Max. connection distance 30 m ⁵
		 <p>RS-422</p> <p>GT01-RS4-M</p>	For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.	
	 <p>RS-422</p> <p>GT10-C□R4-8P¹ 10:1m 100:10m 30:3m 200:20m 300:30m</p> <p>GT10-C□R4-25P² 30:3m 200:20m 100:10m 300:30m</p>	<p>Not required</p> <p>Built in GOT</p>		Max. number of GOTs connected 1 Max. connection distance 30 m ⁵

*1: When connecting to FX0S or FX0N

*2: When connecting to FX1, FX2, or FX2C

*3: Use GT15-RS4-9S for using GT15⁶.

*4: Not connectable to GT1030-L□L/L□LW or GT1020-L□L/L□LW.

*5: When connecting to GT1030-L□L/L□LW or GT1020-L□L/L□LW, the max. connection distance is 3m.

Target device	Cable	Communication unit	GOT	
	<p>Connector conversion box External connection</p> <p>GT01-C□R4-8P⁶ 10:1m 30.3m 100:10m</p> <p>GT16H-CNBT-42P 30.3m 60.6m 100:10m</p> <p>GT01-C□R4-25P⁷ 30.3m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	<p>GT16 Handy</p>	
<ul style="list-style-type: none"> ·FX0 ·FX0S ·FX0N 	<p>External connection</p> <p>GT11H-C□R4-8P⁶ 15:1.5m (A cable exceeding 1.5m should be created by the user.)</p> <p>GT11H-C□R4-25P⁷ 15:1.5m (A cable exceeding 1.5m should be created by the user.)</p> <p>GT11H-CNBT-37P 30.3m 60.6m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	<p>GT11 Handy</p>	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 13 m</p>
<ul style="list-style-type: none"> ·FX1 ·FX2 ·FX2C 	<p>Connector conversion box External connection</p> <p>GT01-C□R4-8P⁶ 10:1m 30.3m 100:10m</p> <p>GT11H-CNBT-37S 30.3m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	<p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>	<p>Max. number of personal computers connected 1</p> <p>Max. connection distance 4.5 m</p>
	<p>RS-422 conversion unit AC3ON2A Commercially available product (D-sub 25-pin ↔ D-sub 9-pin) D-sub 9-pin F2-232CAB-1</p>	<p>Not required</p> <p>Built in personal computer</p> <p>Commercially-available RS-232 board</p>	<p>Programmable controller CPU + PC CPU module</p>	<p>Max. number of personal computers connected 1</p> <p>Max. connection distance 4.5 m</p>
			<p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>	<p>Max. number of personal computers connected 1</p> <p>Max. connection distance 4.5 m</p>

*6: When connecting to FX0S or FX0N

*7: When connecting to FX1, FX2, or FX2C

*8: Connect the PC CPU module to another programmable controller.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	RS-232 or RS-422 connections	GT105□-Q□BD
	RS-232 or RS-422 connections	GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
		GT1030-L□D/L□DW, GT1030-L□L/L□DW, GT1020-L□D/L□DW,
	RS-422 connection	GT1020-L□L/L□DW (For GT1030-L□L/L□DW, GT1020-L□L/L□DW, MELSEC-FXCPU connection is available only.)



Precautions

■ Other precautions

- When connecting or disconnecting converter/cable for GT SoftGOT1000
 - When connecting or disconnecting converter/cable that receives 5VDC power
When connecting or disconnecting the converter/cable that receives 5VDC power from a programmable controller, power off the programmable controller and start working.
 - When connecting or disconnecting converter/cable that does not receive 5VDC power
When connecting or disconnecting peripheral devices and the cables that do not receive 5VDC power from a programmable controller (receives the power from an external power supply), follow the procedure as below.
 - 1) Be sure to use an earth band or touch a grounded metal object before working to discharge the static electricity from the cables, human body, and others.
 - 2) Power off the personal computer.
 - 3) Power off the converter. When the converter/cable have an FG terminal, ground it.
 - 4) Connect/disconnect the converter/cable between the personal computer and programmable controller.
 - 5) Power on the converter.
 - 6) Power on the personal computer.
 - 7) Start up the software package.



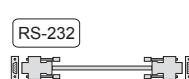
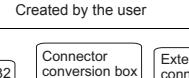
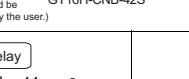
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of direct CPU connection
-
- For the accessible range that can be monitored by GOT
-
- For connection method with Handy GOT
-
- For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 6 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 19 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
- Chapter 22 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)
- Chapter 2 in GT SoftGOT1000 Version3 Operating
Manual for GT Works3 (SH-080860ENG)

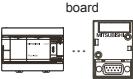
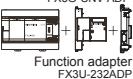
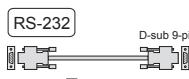
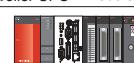
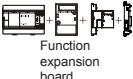
● FX series (FX3G)

System configuration

1) RS-232

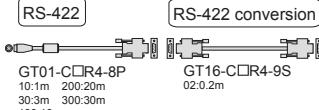
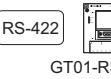
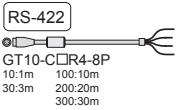
Target device	Cable	Communication unit	GOT	
· FX3G Function expansion board  FX3G-232-BD	  RS-232 GT01-C□R2-9S 30.3m (A cable exceeding 3m should be created by the user.)	 Not required Built in GOT RS-232  GT15-RS2-9P	 GT16/GT15	Max. number of GOTs connected 2*1 Max. connection distance 15 m
Special adapter connection conversion adapter FX3G-CNV-ADP  Function adapter FX3U-232ADP	  RS-232 Created by the user	 Not required Built in GOT	 GT11	
Function expansion board FX3G-232-BD  Special adapter connection conversion adapter FX3G-CNV-ADP  Function expansion board FX3G-232-BD Function adapter FX3U-232ADP	  RS-232 Created by the user	 Not required Built in GOT	 GT105□/GT104□	For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.
	  RS-232 Connector conversion box GT01-C□R2-9S 30.3m (A cable exceeding 3m should be created by the user.)	 Not required Built in GOT	 GT1030/GT1020	Max. number of GOTs connected 2*1 Max. connection distance 15 m
	  RS-232 External connection GT01-C□R2-9S 30.3m (A cable exceeding 3m should be created by the user.)	 Not required Built in GOT	 GT16 Handy	
	  RS-232 External connection GT11H-C□-37P 30.3m	 Not required Built in GOT	 GT11 Handy	Max. number of GOTs connected 1 Max. connection distance 6 m

*1: In case of using the function expansion board (FX3G-232-BD) or the function adapter (FX3U-232ADP) (When using GT1030-L□ L/L□ LW or GT1020-L□ L/L□ LW, two GOTs cannot be connected at the same time.)

Target device	Cable	Communication unit	GOT	
· FX3G Function expansion board  FX3G-232-BD		<p>Not required Built in personal computer</p>		Max. number of personal computers connected 1 Max. connection distance 4.5 m
Special adapter connection conversion adapter FX3G-CNV-ADP Function adapter FX3U-232ADP 	 	Commercially-available RS-232 board	DOS/V personal computer + License key for GT SoftGOT1000	
GOT				
Function expansion board FX3G-232-BD 		<p>Programmable PC CPU controller CPU + module</p> 		Max. number of personal computers connected 1 Max. connection distance 4.5 m
Special adapter connection conversion adapter FX3G-CNV-ADP Function expansion board FX3G-232-BD Function adapter FX3U-232ADP 			GT SoftGOT1000 + License key for GT SoftGOT1000	

*2: Connect the PC CPU module to another programmable controller.

2) RS-422

Target device	Cable	Communication unit	GOT	
· FX3G	 <p>RS-422</p> <p>RS-422 conversion</p> <p>GT01-CR4-8P 10:1m 200:20m 30:3m 300:30m 100:10m</p> <p>GT16-CR4-9S 02:0.2m</p>	<p>Not required</p> <p>Built in GOT</p>	GT16	Max. number of GOTs connected 2^4 Max. connection distance 30.2 m
Function expansion board FX3G-422-BD	 <p>RS-422</p> <p>GT01-CR4-8P 10:1m 200:20m 30:3m 300:30m 100:10m</p>	<p>RS-422 conversion GT15-RS2T4-9P³</p> <p>RS-422/485 GT15-RS4-9S</p>	GT16/GT15	Max. number of GOTs connected 2^4 Max. connection distance 30 m
		<p>Not required</p> <p>Built in GOT</p>	GT11	
		<p>Not required</p> <p>Built in GOT</p>	GT105□/GT104□	
Special adapter connection conversion adapter FX3G-CNVA/ADP	 <p>RS-422</p> <p>GT01-RS4-M</p>	For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.		
Function expansion board FX3G-422-BD	 <p>RS-422</p> <p>GT10-CR4-8P 10:1m 100:10m 30:3m 200:20m 300:30m</p>	<p>Not required</p> <p>Built in GOT</p>	GT1030/GT1020	Max. number of GOTs connected 2^4 Max. connection distance 30 m
Function adapter FX3U-232ADB				

*3: Use GT15-RS4-9S for using GT15□.

*4: In case of using the CPU port (RS-422) or the function expansion board (FX3G-422-BD) (When using GT1030-L□ L/L□ LW or GT1020-L□ L/L□ LW, two GOTs cannot be connected at the same time.)

Target device	Cable	Communication unit	GOT	
FX3G	<p>Connector conversion box External connection GT16H-C□-42P GT16H-CNB-42S</p> <p>GT01-C□R4-8P 10:1m 30:3m 100:10m</p>	<p>Not required Built in GOT</p>	<p>GT16 Handy</p>	Max. number of GOTs connected 1 Max. connection distance 13 m
Function expansion board	<p>External connection GT11H-C□-37P 30:3m 60:6m 100:10m</p> <p>GT11H-C□R4-8P 15:1.5m (A cable exceeding 1.5m should be created by the user.)</p> <p>Connector conversion box RS-422</p> <p>GT01-CDR4-8P 10:1m 30:3m 100:10m</p> <p>GT11H-CNB-37S</p>	<p>Not required Built in GOT</p>	<p>GT11 Handy</p>	
FX3G-422-BD				
Special adapter connection conversion adapter FX3G-CNV-ADP	<p>RS-422 conversion unit AC30N2A Commercially available product (D-sub 25-pin ↔ D-sub 9-pin) F2-232CAB-1</p> <p>FX-422CABO FX-232AW FX-232AWC FX-232AWC-H</p>	<p>Not required Built in personal computer Commercially-available RS-232 board</p>	<p>DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000</p>	Max. number of personal computers connected 1 Max. connection distance 4.5 m
Function expansion board FX3G-422-BD				
Function adapter FX3U-232ADB				
*5: Connect the PC CPU module to another programmable controller.				
The GOT model to be used differs depending on the connection type.				
Series	Connection type	GOT model to be used		
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)		
	Connections other than the above	All the models (communication units connected to the GOT main unit)		
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT166SHS-VTBD		
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)		
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)		
GT11	RS-232 or RS-422 connections	GT115□-Q□BD		
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA		
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD		
GT10	RS-232 or RS-422 connections	GT105□-Q□BD		
	RS-232 or RS-422 connections	GT104□-Q□BD		
	RS-232 connection	GT1030-L□ D2/L□ DW2, GT1020-L□ D2/L□ DW2		
	RS-422 connection	GT1030-L□ D/L□ DW, GT1030-L□ L/L□ LW, GT1020-L□ D/L□ DW, GT1020-L□ L/L□ LW (For GT1030-L□ L/L□ LW, GT1020-L□ L/L□ LW, MELSEC-FXCPU connection is available only.)		

Precautions

■ Precautions on system

- The function expansion boards and function adapters that can be connected to the GOT are the FX3G-232-BD, FX3G-422-BD, and FX3U-232ADP only.

■ Precautions on setup

- When connecting or disconnecting converter/cable for GT SoftGOT1000
 - When connecting or disconnecting converter/cable that receives 5VDC power
 - When connecting or disconnecting the converter/cable that receives 5VDC power from a programmable controller, power off the programmable controller and start working.
 - When connecting or disconnecting converter/cable that does not receive 5VDC power
 - When connecting or disconnecting peripheral devices and the cables that do not receive 5VDC power from a programmable controller (receives the power from an external power supply), follow the procedure as below.
 - Be sure to use an earth band or touch a grounded metal object before working to discharge the static electricity from the cables, human body, and others.
 - Power off the personal computer.
 - Power off the converter. When the converter/cable have an FG terminal, ground it.
 - Connect/disconnect the converter/cable between the personal computer and programmable controller.
 - Power on the converter.
 - Power on the personal computer.
 - Start up the software package.

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of direct CPU connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 6 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 19 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
Chapter 22 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)
- Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

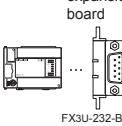
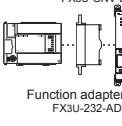
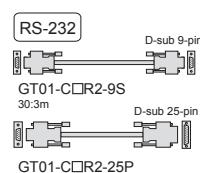
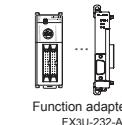
●FX series (FX3U, FX3UC)

System configuration

1) RS-232

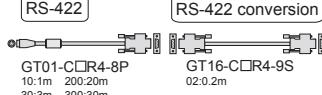
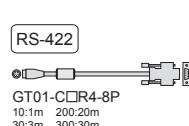
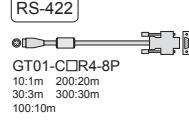
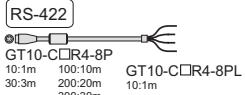
Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> ·FX3U ·FX3UC-□□ LT <p>Function expansion board ... FX3U-232-BD</p> <p>RS-232</p> <p>GT01-C□R2-9S 30:3m (A cable exceeding 3m should be created by the user.)</p>	<p>RS-232</p> <p>GT11</p>	Not required Built in GOT	GT16/GT15	Max. number of GOTs connected 2¹ Max. connection distance 15 m
		RS-232 GT15-RS2-9P		
		Not required Built in GOT	GT105□/GT104□	
		RS-232 GT01-RS4-M	For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.	
<p>Function expansion board FX3U-422-BD FX3U-232-BD FX3U-CNv-BD</p> <p>RS-232</p> <p>Created by the user</p>	<p>RS-232</p> <p>Connector conversion box</p> <p>External connection</p> <p>GT01-C□R2-9S 30:3m (A cable exceeding 3m should be created by the user.)</p> <p>GT16H-C□-42P 30:3m</p> <p>GT16H-CNB-42S</p>	Not required Built in GOT	GT1030/GT1020	Max. number of GOTs connected 2¹ Max. connection distance 15 m
		Not required Built in GOT	GT16 Handy	
<ul style="list-style-type: none"> ·FX3UC-□□/D ·FX3UC-□□/DSS <p>Function adapter ... FX3U-232-ADP</p> <p>Relay</p> <p>Created by the user</p> <p>External connection</p> <p>GT01-C□R2-9S 30:3m (A cable exceeding 3m should be created by the user.)</p> <p>GT11H-C□-37P 30:3m</p> <p>GT11H-CNB-37S</p>	<p>External connection</p> <p>GT11H-C□ 30:3m 60:6m</p>	Not required Built in GOT	GT11 Handy	Max. number of GOTs connected 1 Max. connection distance 6 m

¹: When using the function expansion board (FX3U-232-DB) or the function adapter (FX3U-232ADP), two GOTs can be connected simultaneously to FXCPU and the function expansion board/function adapter.

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> ·FX3U ·FX3UC-□□ LT <p>Function expansion board  ... FX3U-232-BD</p>		<p>Not required Built in personal computer</p>	 Max. number of personal computers connected 1 Max. connection distance 4.5 m
<p>Function expansion board FX3U-422-BD FX3U-232-BD FX3U-CNV-BD</p> <p>Function adapter FX3U-232-ADP</p>  ... FX3U-232-ADP	<p>RS-232</p> 	<p>Commercially-available RS-232 board</p>	<p>DOS/V personal computer + License key for GT SoftGOT1000</p>
<ul style="list-style-type: none"> ·FX3UC-□□ /D ·FX3UC-□□ /DSS <p>Function adapter FX3U-232-ADP</p>  ... FX3U-232-ADP		<p>Programmable PC CPU controller CPU + module</p> 	<p>Max. number of personal computers connected 1 Max. connection distance 4.5 m</p>

*2: Connect the PC CPU module to another programmable controller.

2) RS-422

Target device	Cable	Communication unit	GOT	
·FX3U ·FX3UC-□□ LT	 <p>RS-422 RS-422 conversion</p> <p>GT01-CR4-8P GT16-CR4-9S</p> <p>10:1m 200:20m 30:3m 300:30m 100:10m 02:0.2m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GOT16</p>	Max. number of GOTs connected 2⁴ Max. connection distance 30.2 m
Function expansion board FXDN-422-BD	 <p>RS-422</p> <p>GT01-CR4-8P GT15-RS2T4-9P</p> <p>10:1m 200:20m 30:3m 300:30m 100:10m 02:0.2m</p>	<p>RS-422 conversion³</p> <p>GT15-RS2T4-9P</p>	 <p>GOT16/GT15</p>	Max. number of GOTs connected 2⁴ Max. connection distance 30 m
·FX3UC-□□/D ·FX3UC-□□/DSS	 <p>RS-422</p> <p>GT01-CR4-8P GT15-RS4-9S</p> <p>10:1m 200:20m 30:3m 300:30m 100:10m 02:0.2m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GOT11</p>	
		<p>Not required</p> <p>Built in GOT</p>	 <p>GOT105/GT104</p>	
	 <p>RS-422</p> <p>GT10-CR4-8P GT01-RS4-M</p> <p>10:1m 100:10m 10:1m 30:3m 200:20m 300:30m 02:0.2m</p>	<p>For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.</p>	 <p>GOT1030/GT1020</p>	Max. number of GOTs connected 2⁴ Max. connection distance 30 m

*3: Use GT15-RS4-9S for using GT15□.

*4: When using the function expansion board (FX3U-232-DB), two GOTs can be connected simultaneously to FXCPU and the function expansion board/function adapter.

Target device	Cable	Communication unit	GOT
• FX3U • FX3UC-□□ LT	<p>RS-422 GT01-C□R4-8P 10:1m 30:3m 100:10m GT16H-CNB-42S Connector conversion box External connection</p> <p>Relay GT11H-C□R4-8P 15:1.5m (A cable exceeding 1.5m should be created by the user.) RS-422 GT01-C□R4-8P 10:1m 30:3m 100:10m GT11H-CNB-37S Connector conversion box External connection</p>	<p>Not required Built in GOT</p>	<p>GT16 Handy</p>
Function expansion board FX-CN-422-BD	<p>GT11H-C□37P 30:3m 60:6m 100:10m GT11H-CNB-37S Connector conversion box External connection</p>	<p>Not required Built in GOT</p>	<p>GT11 Handy</p>
• FX3UC-□□/D • FX3UC-□□/DSS	<p>RS-422 FX-232AW FX-232AWC FX-232AWC-H RS-422 conversion unit AC30N2A Conversion Commercially-available product (D-sub 25-pin ↔ D-sub 9-pin) F2-232CAB-1</p>	<p>Not required Built in personal computer Commercially-available RS-232 board</p>	<p>DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000</p>
		<p>Programmable CPU module + PC CPU controller CPU module</p>	<p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>
			<p>Max. number of personal computers connected 1 Max. connection distance 4.5 m</p>

*5: Connect the PC CPU module to another programmable controller.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	GT105□	RS-232 or RS-422 connections
	GT104□	RS-232 or RS-422 connections
	GT1030 GT1020	RS-232 connection
		GT1030-L□D/L□DW, GT1030-L□L/L□DW, GT1020-L□D/L□DW, GT1020-L□L/L□DW (For GT1030-L□L/L□DW, GT1020-L□L/L□DW, MELSEC-FXCPU connection is available only.)

Precautions

■ Precautions on system

- The function expansion boards and function adapters that can be connected to the GOT are the FX3U-232-BD, FX3U-422-BD, and FX3U-232ADP only.

■ Precautions on setup

- When connecting or disconnecting converter/cable for GT SoftGOT1000
 - When connecting or disconnecting converter/cable that receives 5VDC power
When connecting or disconnecting the converter/cable that receives 5VDC power from a programmable controller, power off the programmable controller and start working.
 - When connecting or disconnecting converter/cable that does not receive 5VDC power
When connecting or disconnecting peripheral devices and the cables that do not receive 5VDC power from a programmable controller (receives the power from an external power supply), follow the procedure as below.
 - 1) Be sure to use an earth band or touch a grounded metal object before working to discharge the static electricity from the cables, human body, and others.
 - 2) Power off the personal computer.
 - 3) Power off the converter. When the converter/cable have an FG terminal, ground it.
 - 4) Connect/disconnect the converter/cable between the personal computer and programmable controller.
 - 5) Power on the converter.
 - 6) Power on the personal computer.
 - 7) Start up the software package.

■ Other precautions

- When a keyword is registered for the FXCPU (FX3U/FX3UC series), the GOT may not monitor the CPU. Execute the I/O check again. When the I/O check result is normal, check the keyword registration of the CPU.
- When connecting the FX-232AWC-H to the FX3UCCPU, the transmission speed of 600, 19200, 38400, 57600, or 115200bps can be used.
When connecting the FX-232AWC or FX-232AW to the FX3UCCPU, the transmission speed of 9600 or 19200bps can be used.



Related Manuals

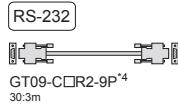
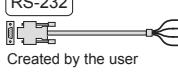
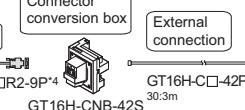
- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of direct CPU connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 6 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 19 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
-  Chapter 22 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
-  Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

4.1.5 Computer link connection

- QCPU (Q mode)/C controller/LCPU/Motion controller CPU (Q series)
/CNC C70/Robot controller

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> • QCPU(Q mode) • C controller *10*11 • LCPU • Motion controller CPU (Q series)*12 • CNC C70*23 • CRNQ-700*23 • MELSECNET/H¹ remote I/O station • CC-Link IE field network head module 		Not required Built in GOT	GT16/GT15	Max. number of GOTs connected 1 or 2^{*5} Max. connection distance 15 m
		RS-232 GT09-C□R2-9P*4 30.3m	GT15-RS2-9P	
		Not required Built in GOT	GT11	
		Not required Built in GOT	GT105□/GT104□	
		RS-232 GT01-RS4-M *13	For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.	Max. number of GOTs connected 1 or 2^{*5} Max. connection distance 15 m
		Not required Built in GOT	GT1030/GT1020	
		Connector conversion box External connection GT16H-CN8-42S 30.3m	GT16 Handy	Max. number of GOTs connected 1 Max. connection distance 6 m
		Not required Built in GOT	GT16 Handy	

*1: Available only for GT16, GT15, GT11, and Handy GOT.

*2: Available only for GT16, GT15, GT11, Handy GOT, and GT SoftGOT1000.

*3: Configure the multiple CPU system.

*4: Recommended Product. Purchase the cable from Mitsubishi Electric System & Service Co., Ltd.

*5: When using QJ71C24N-(R2/R4)

*6: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

*7: Connect to the first stage of an extension base unit (Q52B/Q55B).

*8: Use a model whose the first five digits of the serial number are 12042 or later.

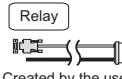
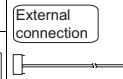
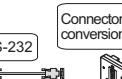
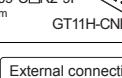
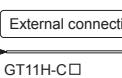
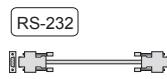
*9: Use the serial port of the serial communication module controlled by another station in the multiple CPU system.

*10: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

*11: Available only for QCPU.

*12: Available only for QCPU.

*13: Available only for QCPU.

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> · QCPU(Q mode) · C controller^{*21*22} · LCPU · Motion controller CPU (Q series)^{*16*23} · CNC C70^{*15*16} · CRnQ-700^{*15*16} · MELSECNET/H^{*14} remote I/O station · CC-Link IE field network head module · Q170MCPU^{*19*20}  <p>Serial communication module</p>	 <p>Created by the user</p>  <p>External connection</p>  <p>GT11H-C□-37P 30.3m</p>  <p>GT09-C□R2.9P^{*17} 30.3m</p>  <p>GT11-CN-37S</p>  <p>GT11H-C□ 30.3m 60.6m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT11 Handy</p>	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 6 m</p>
	 <p>Created by the user</p>	<p>Not required</p> <p>Built in personal computer</p> <p>Commercially-available RS-232 board</p>	  <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>	<p>Max. number of personal computers connected 1</p> <p>Max. connection distance 15 m</p>
GOT				
		 <p>*18</p> <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>	 <p>GT SoftGOT1000 + License key for GT SoftGOT1000</p>	<p>Max. number of personal computers connected 1</p> <p>Max. connection distance 15 m</p>

*14: Available only for GT16, GT15, GT11, and Handy GOT.

*15: Available only for GT16, GT15, GT11, Handy GOT, and GT SoftGOT1000

*16: Configure the multiple CPU system

*17: Recommended Product. Purchase the cable from Mitsubishi Electric System & Service Co., Ltd.

*18: Connect the PC CPU module to another programmable controller.

*19: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

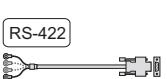
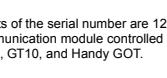
*20: Connect to the first stage of an extension base unit (Q52B/Q55B).

*21: Use a model whose the first five digits of the serial number are 12042 or later.

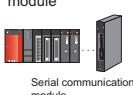
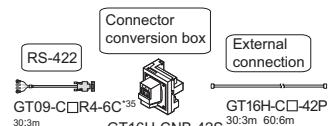
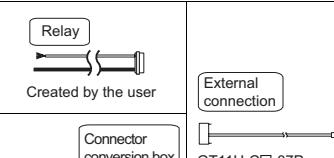
*22: Use the serial port of the serial communication module controlled by another station in the multiple CPU system.

*23: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

2) RS-422

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> · QCPU(Q mode) · C controller²⁹³⁰ · LCPU · Motion controller CPU (Q series)²⁵³¹ · CNC C70²⁴²⁵ · CRnQ-700²⁴²⁵ · MELSECNET/H²⁴ remote I/O station · CC-Link IE field network head module  <p>Serial communication module</p>	 <p>GT09-C□R4-6C²⁶ 30:3m 100:10m</p> <p>GT16-C□R4-9S 200:20m 300:30m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16</p>	<p>Max. number of GOTs connected 1 or 2²⁸</p> <p>Max. connection distance 1200 m</p>
	 <p>GT09-C□R4-6C²⁶ 30:3m 100:10m</p>	<p>RS-422 conversion²⁷</p> <p>GT15-RS2T4-9P</p>	 <p>GT16/GT15</p>	
	 <p>GT01-RS4-M³²</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT11</p>	
	 <p>Created by the user</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT105□/GT104□</p>	
			 <p>GT1030/GT1020</p>	<p>For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.</p> <p>Max. number of GOTs connected 1 or 2²⁸</p> <p>Max. connection distance 1200 m</p>

²⁴: Available only for GT16, GT15, GT11, and Handy GOT.²⁵: Configure the multiple CPU system.²⁶: Recommended Product. Purchase the cable from Mitsubishi Electric System & Service Co., Ltd.²⁷: Use GT15-RS4-9S for using GT155□.²⁸: When using QJ71C24N(-R2/R4).²⁹: Use a model whose the first five digits of the serial number are 12042 or later.³⁰: Use the serial port of the serial communication module controlled by another station in the multiple CPU system.³¹: Available only for GT16, GT15, GT11, GT10, and Handy GOT.³²: Available only for QCPU.

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> · QCPU(Q mode) · C controller^{36*37} · LCPU · Motion controller CPU (Q series)^{34*38} · CNC C70^{33*34} · CRnQ-700^{33*34} · MELSECNET/H³³ remote I/O station · CC-Link IE field network head module  <p>Serial communication module</p>	 <p>Connector conversion box External connection</p> <p>GT09-C□R4-6C³⁵ 30:3m 100:10m</p> <p>GT16H-CNBT-42S 30:3m 60:6m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16 Handy</p>	
	 <p>Relay Created by the user</p> <p>External connection</p> <p>GT11H-C□-37P 30:3m 60:6m 100:10m</p> <p>GT11H-CNBT-37S 30:3m 100:10m</p>		 <p>GT11 Handy</p>	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 13 m</p>
	 <p>External connection</p> <p>GT11H-C□ 30:3m 60:6m</p>			

*33: Available only for GT16, GT15, GT11, and Handy GOT.

*34: Configure the multiple CPU system.

*35: Recommended Product. Purchase the cable from Mitsubishi Electric System & Service Co., Ltd.

*36: Use a model whose the first five digits of the serial number are 12042 or later.

*37: Use the serial port of the serial communication module controlled by another station in the multiple CPU system.

*38: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
GT10	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□-HS-Q□BD
GT10	GT105□	RS-232 or RS-422 connections GT105□-Q□BD
	GT104□	RS-232 or RS-422 connections GT104□-Q□BD
		RS-232 connection GT1030-L□ D2/L□ DW2, GT1020-L□ D2/L□ DW2
	GT1030 GT1020	RS-422 connection GT1030-L□ D/L□ DW, GT1030-L□ L/L□ LW, GT1020-L□ D/L□ DW, GT1020-L□ L/L□ LW (For GT1030-L□ L/L□ LW, GT1020-L□ L/L□ LW, MELSEC-FXCPU connection is available only.)

Available module

Serial communication module/Computer link module ^{*39}		
Model	CH1	CH2
QJ71C24 ^{*40}	RS-232	RS-422/485
QJ71C24-R2 ^{*40}	RS-232	RS-232
QJ71C24N	RS-232	RS-422/485
QJ71C24N-R2	RS-232	RS-232
QJ71C24N-R4 ^{*41}	RS-422/485	RS-422/485
QJ71CMO ^{*42}	Modular connector	RS-232
QJ71CMON ^{*42}	Modular connector	RS-232
LJ71C24	RS-232	RS-422/485
LJ71C24-R2	RS-232	RS-232

*39 Communications via the RS-485 interface cannot be executed. A0J2-C214-S1 cannot be used.

*40 Either CH1 or CH2 can be used for the function version A. CH1 can be used with CH2 for the function version B or later.

*41 Not available for GT SoftGOT1000.

*42 Connectable only with CH2.

Precautions

Precautions on system

- Connecting the GOT directly to Basic model QCPU is recommended. The GOT is not applicable to the serial communication function for Basic model QCPU.
- Connect a terminating resistor (330Ω , 1/4W (orange, orange, brown, □)) to the serial communication module/computer link module.
The GOT has a built-in terminating resistor.

Other precautions

- For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.
- When connecting to motion controller CPU (Q series)
 - For Q172CPU or Q173CPU
Use the motion controller CPU with the following production numbers.
Q172CPU with N***** or later, Q173CPU with M***** or later
 - For Q172CPU, Q173CPU, Q172CPUN, or Q173CPUN
For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later

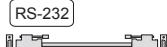
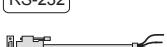
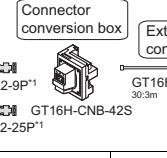
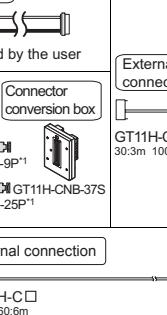
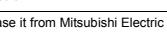
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of computer link connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- ▶ Chapter 7 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 20 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 22 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- ▶ Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

●QnACPU type

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT		
· QnACPU type  	 RS-232 GT09-C□R2-9P* ¹ 30.3m	 Not required Built in GOT  GT15-RS2-9P	GT16/GT15	Max. number of GOTs connected 1 Max. connection distance 15 m	
		 Not required Built in GOT	GT11		
		 Not required Built in GOT	GT105□/GT104□		
	 RS-232  Created by the user	 RS-232 GT01-RS4-M ^{*2}	For details how to connect to a GOT, refer to 4.2.5 GOT Multi-drop connection.		
		 Not required Built in GOT	GT1030/GT1020		
	 RS-232  Created by the user  Connector conversion box External connection GT16H-C□-42P 30.3m GT09-C□R2-9P* ¹ 30.3m GT09-C□R2-25P* ¹ 30.3m	 Not required Built in GOT	GT16 Handy	Max. number of GOTs connected 1 Max. connection distance 15 m	
		 Relay  External connection GT11H-C□-37P 30.3m 100:10m GT09-C□R2-9P* ¹ 30.3m GT09-C□R2-25P* ¹ 30.3m External connection GT11H-C□ 30.3m 60:8m	 Not required Built in GOT		

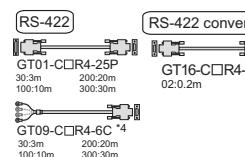
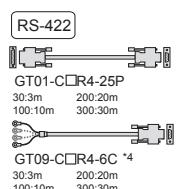
*1: Recommended Product. Purchase it from Mitsubishi Electric System & Service Co., Ltd.

*2: Available only for QCPU.

Target device	Cable	Communication unit	GOT
<p>· QnACPU type</p> 	D-sub 25-pin AC30N2A	<p>Not required Built in personal computer</p> <p>Commercially-available RS-232 board</p>	 DOS/V personal computer + License key for GT SoftGOT1000 Max. number of personal computers connected 1 Max. connection distance 15 m

*3: Connect the PC CPU module to another programmable controller.

2) RS-422

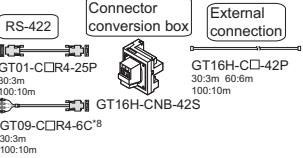
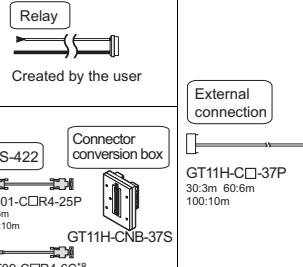
Target device	Cable	Communication unit	GOT
		<p>Not required Built in GOT</p>	 GT16
· QnACPU type		<p>RS-422 conversion GT15-RS2T4-9P</p> <p>RS-422/485 GT15-RS4-9S</p> <p>Not required Built in GOT</p> <p>Not required Built in GOT</p>	 GT16/GT15
		<p>Not required Built in GOT</p>	 GT11
		<p>Not required Built in GOT</p>	 GT1030/GT1020

*4: Recommended Product. Purchase the cable from Mitsubishi Electric System & Service Co., Ltd.

*5: Available only for QCPU.

*6: Use GT15-RS4-9S for using GT15□ .

*7: When using A1-SJ71UC24

Target device	Cable	Communication unit	GOT	
	 <p>RS-422 GT01-C□R4-25P 30:3m 100:10m GT09-C□R4-6C*⁸ 30:3m 100:10m</p> <p>Connector conversion box</p> <p>External connection</p> <p>GT16H-C□-42P 30:3m 60:6m 100:10m</p> <p>GT16 Handy</p>	<p>Not required Built in GOT</p>	GT16 Handy	
. QnACPU type	 <p>Relay Created by the user</p> <p>External connection</p> <p>GT11H-C□-37P 30:3m 60:6m 100:10m</p> <p>GT11 Handy</p>	<p>Not required Built in GOT</p>	GT11 Handy	<p>Max. number of GOTs connected 1</p> <p>Max. connection distance 13 m</p>
	 <p>External connection</p> <p>GT11H-C□ 30:3m 60:6m</p>			

*8: Recommended Product. Purchase it from Mitsubishi Electric System & Service Co., Ltd.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□-HS-Q□BD
GT10	GT105□	GT105□-Q□BD
	GT104□	GT104□-Q□BD
	RS-232 connection	GT1030-L□D/L□DW, GT1020-L□D/L□DW2
	GT1030 GT1020	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Available module

Serial communication module/Computer link module ^{*9}		
Model	CH1	CH2
AJ71QC24 ^{*10}	RS-232	RS-422/485
AJ71QC24-R2 ^{*10}	RS-232	RS-232
AJ71QC24-R4 ^{*10} ^{*11}	RS-422	RS-422/485
AJ71QC24N ^{*10}	RS-232	RS-422/485
AJ71QC24N-R2 ^{*10}	RS-232	RS-232
AJ71QC24N-R4 ^{*10} ^{*11}	RS-422	RS-422/485
A1SJ71QC24 ^{*10}	RS-232	RS-422/485
A1SJ71QC24-R2 ^{*10}	RS-232	RS-232
A1SJ71QC24N ^{*10}	RS-232	RS-422/485
A1SJ71QC24N-R2 ^{*10}	RS-232	RS-232
A1SJ71QC24N1 ^{*10}	RS-232	RS-422/485
A1SJ71QC24N1-R2 ^{*10}	RS-232	RS-232
AJ71UC24 ^{*10} ^{*12}	RS-232	RS-422/485
A1SJ71UC24-R2 ^{*12}	RS-232	-
A1SJ71UC24-R4 ^{*12}	RS-422/485	-

- *9 Communications via the RS-485 interface cannot be executed. A0J2-C214-S1 cannot be used.
When the A series computer link module is used with the QnACPU, the devices that can be monitored are only devices with the same name as the devices in the device range of the AnACPU. Note that the following devices cannot be monitored.
- Devices newly added to the QnACPU
 - Latch relays (L) and step relays (S)
(For the QnACPU, the latch relay (L) and step relay (S) are different from the internal relay (M). However, the internal relay is accessed even if the latch relay or the step relay is specified.)
 - File register (R)
- *10 Either CH1 or CH2 can be used.
- *11 Not available for GT SoftGOT1000.
- *12 The module operates in the device range of the AnACPU. (The R device is not available.)



Precautions

■ Precautions on system

- Connect a terminating resistor (330Ω, 1/4W (orange, orange, brown, □)) to the serial communication module/computer link module.
The GOT has a built-in terminating resistor.

■ Precautions on setup

- When the A series computer link module is used with the QnACPU, the QnACPU cannot be monitored with GT SoftGOT1000.



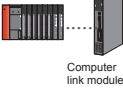
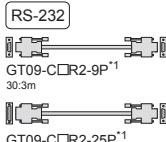
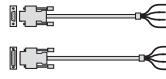
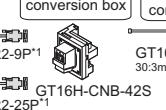
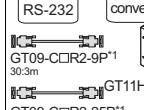
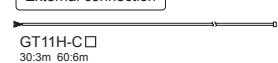
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of computer link connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 7 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 20 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 22 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
 - Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

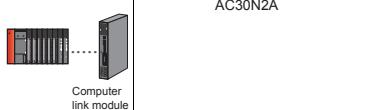
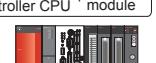
●QCPU (A mode)/ACPU/Motion controller CPU (A series)

System configuration

1) RS-232

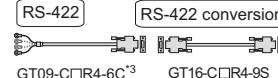
Target device	Cable	Communication unit	GOT	
 <ul style="list-style-type: none"> • QCPU (A mode) • ACPU type • Motion controller CPU (A series) 	 <p>GT09-C□R2-9P*1 30.3m</p> <p>GT09-C□R2-25P*1</p>	Not required Built in GOT	 <p>GT16/GT15</p>	Max. number of GOTs connected 1
		RS-232 	GT15-RS2-9P	
		Not required Built in GOT		
		Not required Built in GOT	GT105□/GT104□	
	 <p>Created by the user</p>	Not required Built in GOT	 <p>GT1030/GT1020</p>	Max. connection distance 15 m
		Not required Built in GOT		
	 <p>GT09-C□R2-9P*1 30.3m</p> <p>GT09-C□R2-25P*1</p> <p>GT16H-CN8-42S</p>	Connector conversion box External connection	 <p>GT16 Handy</p>	Max. number of GOTs connected 1
		GT16H-C□-42P 30.3m		
	 <p>Created by the user</p>	External connection	 <p>GT11 Handy</p>	Max. connection distance 6 m
		GT11H-C□-37P 30.3m		
	 <p>GT09-C□R2-9P*1 30.3m</p> <p>GT09-C□R2-25P*1</p> <p>GT11H-CN8-37S</p>	Connector conversion box External connection		
		GT11H-C□-37P 30.3m		
	 <p>GT11H-C□ 30.3m 60.6m</p>	External connection		
		GT11H-C□ 30.3m 60.6m		

*1: Recommended Product. Purchase it from Mitsubishi Electric System & Service Co., Ltd.

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> · QCPU (A mode) · ACPU type · Motion controller CPU (A series) 		<p>Not required Built in personal computer</p> <p>Commercially-available RS-232 board</p>	 DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 1 Max. connection distance 15 m
		Programmable controller CPU + PC CPU module *2	 GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 1 Max. connection distance 15 m

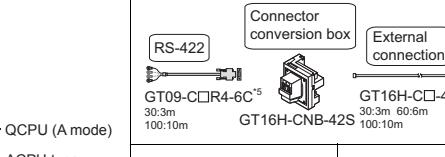
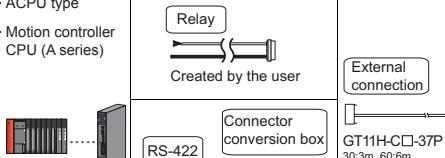
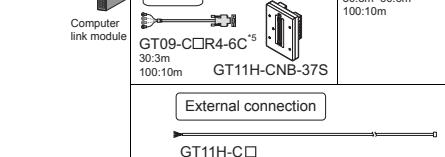
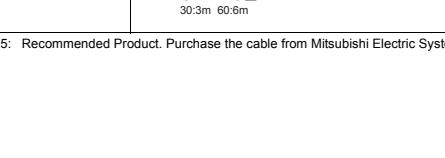
*2: Connect the PC CPU module to another programmable controller.

2) RS-422

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> · QCPU (A mode) · ACPU type · Motion controller CPU (A series) 	 GT09-C□R4-6C ³ 30:3m 200:20m 100:10m 300:30m	<p>Not required Built in GOT</p>	 GT16	Max. number of GOTs connected 1 Max. connection distance 500 m
			 GT15/RS2T4-9P *4	
	 GT15-RS4-9S	<p>RS-422/485</p>	 GT16/GT15	
			 GT11	
	 Created by the user	<p>Not required Built in GOT</p>	 GT105□/GT104□	
			 GT1030/GT1020	

*3: Recommended Product. Purchase the cable from Mitsubishi Electric System & Service Co., Ltd.

*4: Use GT15-RS4-9S for using GT15□.

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> QCPU (A mode) ACPU type Motion controller CPU (A series) 		<p>Not required</p> <p>Built in GOT</p>	 <p>GT16 Handy</p>
		<p>Not required</p> <p>Built in GOT</p>	 <p>GT11 Handy</p>

*5: Recommended Product. Purchase the cable from Mitsubishi Electric System & Service Co., Ltd.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT105□	RS-232 or RS-422 connections	GT105□-Q□BD
GT104□	RS-232 or RS-422 connections	GT104□-Q□BD
GT10	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	GT1030 GT1020	GT1030-L□D□L□DW, GT1030-L□L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Available module

CPU series	Serial communication module/Computer link module ^{*6}		
	Model	CH1	CH2
MELSEC-Q series (A mode)	A1SJ71UC24-R2	RS-232	-
	A1SJ71UC24-R4 ^{*9}	RS-422/485	-
MELSEC-A series Motion controller CPU (A series)	AJ71UC24 ^{*8}	RS-232	RS-422/485
	AJ71C24-S8 ^{*11}	RS-232	RS-422
	A1SJ71UC24-R2 ^{*8}	RS-232	-
	A1SJ71UC24-R4 ^{*8} ^{*9}	RS-422/485	-
	A1SJ71C24-R2 ^{*8} ^{*10}	RS-232	-
	A1SJ71C24-R4 ^{*8} ^{*9} ^{*10}	RS-422/485	-
	A1SCPUC24-R2 ^{*8}	RS-232	-
	A2CCPUC24 ^{*7}	RS-232	RS-422/485

^{*6} Communications via the RS-485 interface cannot be executed. A0J2-C214-S1 cannot be used.

^{*7} Either CH1 or CH2 can be used.

^{*8} When connecting to A1SHCPU, A2SCPU (S1), A2SHCPU (S1), A1SJHCPU, A0J2HCP, A171SHCPU (N), or A172SHCPU, use the computer link module with the software version U or later.

^{*9} Not available for GT SoftGOT1000.

^{*10} The module operates in the device range of the AnACPU. (The R device is not available.)

^{*11} Available only for GT SoftGOT1000.

Precautions

Precautions on system

- Connect a terminating resistor (330Ω, 1/4W (orange, orange, brown, □)) to the serial communication module/computer link module.
The GOT has a built-in terminating resistor.
- The motion controller (A series) cannot be connected to the remote I/O station.

Precautions on setup

- When connecting GT11 to A series computer link module
- When connecting the GT11 to the A series computer link module via the RS-232 communication, set the buffer memory for the module without checking the CD signal.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of computer link connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 7 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 20 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
 - Chapter 22 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
 - Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

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GLOSSARY

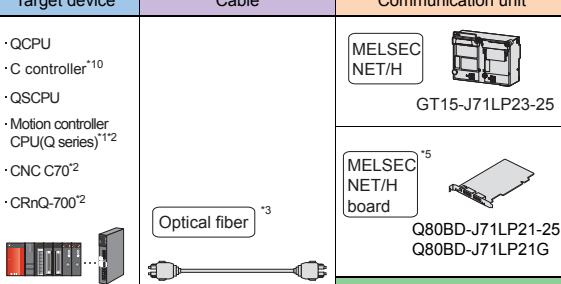
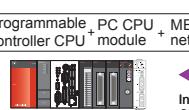
COMPLIANCE WITH OVERSEAS STANDARDS

EQUIPMENT, SOFTWARE, AND MANUALS

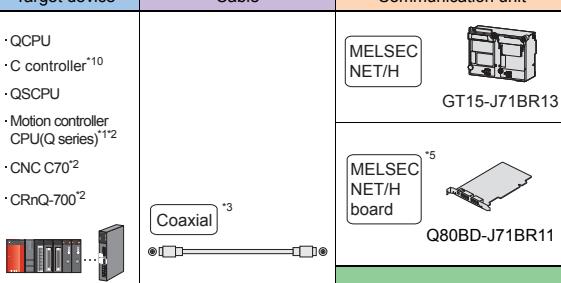
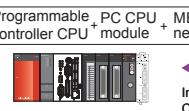
4.1.6 MELSECNET/H connection

System configuration

1) Optical loop

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> · QCPU · C controller^{*10} · QSCPU · Motion controller CPU(Q series)^{*12} · CNC C70² · CRnQ-700² · Network module · Q170MCPU^{*8*9} 	Optical fiber ^{*3}	<p>MELSECNET/H GT15-J71LP23-25</p> <p>MELSECNET/H board^{*5} Q80BD-J71LP21-25 Q80BD-J71LP21G</p>	<p>GT16/GT15</p> <p>DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000</p> <p>Max. number of GOTs connected 63 Max. connection distance 1 km^{*4}</p>
GOT			
		<p>Programmable PC CPU[*] module + MELSECNET/H network module^{*6} Install to a PC CPU module.</p> 	<p>Max. number of personal computers connected 64 Max. connection distance 1 km^{*4}</p>

2) Coaxial bus

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> · QCPU · C controller^{*10} · QSCPU · Motion controller CPU(Q series)^{*12} · CNC C70² · CRnQ-700² · Network module · Q170MCPU^{*8*9} 	Coaxial ^{*3}	<p>MELSECNET/H GT15-J71BR13</p> <p>MELSECNET/H board^{*5} Q80BD-J71BR11</p>	<p>GT16/GT15</p> <p>DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000</p> <p>Max. number of GOTs connected 31 Max. connection distance 500 m^{*7}</p>
GOT			
		<p>Programmable PC CPU[*] module + MELSECNET/H network module^{*6} Install to a PC CPU module.</p> 	<p>Max. number of personal computers connected 32 Max. connection distance 500 m^{*7}</p>

*1: GT SoftGOT1000 is not available.

*2: Configure the multiple CPU system.

*3: For the cable type to be used, refer to the MELSECNET/H reference manual.

*4: Distance between stations for using the QSI optical cable.

The overall extension cable length and the length between stations differ depending on the cable type to be used and the total number of stations.
For details, refer to the MELSECNET/H reference manual.

*5: When connecting to the Q redundant system, use the version K or later for the MELSECNET/H board driver (SW0DNC-MNETH-B).

*6: Connect the PC CPU module to another programmable controller.

*7: Distance between stations for using the 5C-2V coaxial cable. The overall extension cable length and the length between stations differ depending on the cable type to be used and the total number of stations. For details, refer to the MELSECNET/H reference manual.

*8: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

*9: Connect to the first stage of an extension base unit (Q52B/Q55B).

*10: Use a model whose the first five digits of the serial number are 12042 or later.

Available module

CPU series	MELSECNET/H module	
	Optical loop	Coaxial bus
MELSEC-Q series (Q mode) ^{*11}	QJ71LP21	
MELSEC-QS series	QJ71LP21-25 QJ71LP21S-25	QJ71BR11 ^{*11}
C controller	QJ71LP21-25 QJ71LP21S-25	QJ71BR11 ^{*11}

*11 Use the CPU and MELSECNET/H network module with the function version B or later.



Precautions

■ Precautions on system

● Connectable network

A GOT is connected to the following network systems as a normal station.

- Optical loop system of MELSECNET/H network system (programmable controller to programmable controller network)
- Coaxial bus system of MELSECNET/H network system (programmable controller to programmable controller network)

● When using MELSECNET/H network module

When connecting the MELSECNET/H network module to MELSECNET/H network system, set the network type to the MELSECNET/H mode or the MELSECNET/H extended mode.

● Creating network

For the network where a GOT is connected, create a MELSECNET/H network (programmable controller to programmable controller network).

The GOT cannot be connected to the following network.

- MELSECNET/H system (remote I/O network)

● Applicable range for monitoring

A GOT can only monitor a programmable controller on the network where the GOT is connected. Note that the routing parameter setting is required when monitoring the programmable controller CPU on the other network.

● Network type setting

- When setting the network type, set all the network modules in the same network to the same network type.
(The MELSECNET/H mode and MELSECNET/H extended mode cannot be set simultaneously.)
- For the MELSECNET/H connection with the redundant QCPU system, the network type cannot be set to [MNET/H EXT mode].

● When connecting to QCPU (Q mode)

For MELSECNET/H network module and QCPU (Q mode), use the function version B or later.

● The motion controller (A series) cannot be connected to the remote I/O station.

● When using the QSCPU

The GOT can only read device data and sequence programs by the ladder monitor function in the QSCPU.

The GOT cannot write any data to the QSCPU.

■ Precautions on setup

● When changing the switch setting

When changing the switch setting after installing the MELSECNET/H communication unit on the GOT, reset the GOT.

● Correctly solder the connector for the coaxial cable.

Incomplete soldering causes malfunctions.

■ Other precautions

● For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.

● In the redundant QCPU system, the MELSECNET/H extended mode is not available.

● When connecting to motion controller CPU (Q series)

- For Q172CPU or Q173CPU
Use the motion controller CPU with the following production numbers.
Q172CPU with N***** or later, Q173CPU with M***** or later

- For Q172CPU, Q173CPU, Q172CPUN, or Q173CPUN

For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.

SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of MELSECNET/H connection
 - For the accessible range that can be monitored by GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- ▶ Chapter 9 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 2 in GT SoftGOT1000 Version3 Operating
Manual for GT Works3 (SH-080860ENG)

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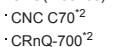
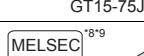
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GLOSSARY

4.1.7 MELSECNET/10 connection

System configuration

1) Optical loop

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> · QCPU · C controller^{*13} · QSCPU · QN/A/ACPU (control station/ normal station) · Motion controller CPU/Q series)^{*12} · Motion controller CPU/A series) · CNC C70^{*2} · CRnQ-700^{*2}  		 GT15-J71LP23-25	 GT16/GT15	Max. number of GOTs connected 63 Max. connection distance 1 km^{*6}
		 GT15-75J71LP23-Z	 GT15	
		 Q80BD-J71LP21-25 Q80BD-J71LP21G	 GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 64 Max. connection distance 1 km^{*6}
		GOT		
		Programmable controller CPU + PC CPU + MELSECNET/H module	 GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 64 Max. connection distance 1 km^{*6}

2) Coaxial bus

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> • QCPU • C controller^{*13} • QSCPU • QnA/ACPU (control station/ normal station) • Motion controller CPU(Q series)^{*12} • Motion controller CPU(A series) • CNC C70^{*2} • CRnQ-700^{*2}  <p>Network module</p> <ul style="list-style-type: none"> • Q170MPCU^{*11*12} 		 ^{*8} MELSEC NET/H  GT15-J71BR13	 GT16/GT15	Max. number of GOTs connected 31
		 ^{*4*5} MELSEC NET/10  GT15-75J71BR13-Z	 GT15	Max. connection distance 500 m^{*10}
	 ^{*3} 	 ^{*8*9} MELSEC NET/H board  Q80BD-J71BR11	  DOS/V personal computer  GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 32 Max. connection distance 500 m^{*10}
GOT				
		 Programmable controller CPU + module  MELSECNET/H network module	 GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 32 Max. connection distance 500 m^{*10}

*1: Not available for GT SoftGOT1000.

- *2: Configure the multiple CPU system.
- *3: For the cable type to be used, refer to

*3: For the cable type to be used, refer to the MELSECNET/H reference manual.
*4: Cannot be used on GT155□.

*6: Distance between stations for using the QSI fiber optic cable.
The overall extension cable length and the length between stations differ depending on the cable type to be used and the total number of stations.
For details, refer to the MELSECNET/H reference manuals.

*7: Connect the PC CPU module to another programmable controller.

- *8: Select the MELSECNET/10 mode for [Communication Setting]
- *9: When connecting to the Q redundant system, use the version

*9: When connecting to the Q redundant system, use the version K or later for the MELSECNET/H board driver (SW0DNC-MNETH-B).

*10:Distance between stations for using the 5C-2V coaxial cab

The overall extension cable length and the length between to be used and the total number of stations.

For details, refer to the MELSECNET/H reference manual.

*11:Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.
*12:Connect to the first stage of an extender base unit (Q52P/Q55P).

*12:Connect to the first stage of an extension base unit (Q52B/Q55B).
*13:Use a model where the first five digits of the serial number are 12042 or later.

*13: Use a model whose the first five digits of the serial number are 12042 or later.

For details, refer to the MELSECNET/H reference manuals.

Available module

CPU series	MELSECNET/H module (NET/10 mode), MELSECNET/10 module	
	Optical loop	Coaxial bus
MELSEC-Q series (Q mode) ^{*14} MELSEC-QS series	QJ71LP21 QJ71LP21-25 QJ71LP21S-25	QJ71BR11 ^{*14}
C controller	QJ71LP21-25 QJ71LP21S-25	QJ71BR11 ^{*14}
MELSEC-QnA series	AJ71QLP21 AJ71QLP21S A1SJ71QLP21 A1SJ71QLP21S	AJ71QBR11 A1SJ71QBR11
MELSEC-Q series (A mode) MELSEC-A series Motion controller CPU (A series)	AJ71LP21 A1SJ71LP21	AJ71BR11 A1SJ71BR11

*14 Use the CPU and MELSECNET/H network module with the function version B or later.

Precautions

■ Precautions on system

● Connectable network

A GOT is connected to the following network systems as a normal station.

- Optical loop system of MELSECNET/10 network system (programmable controller to programmable controller network)
- Coaxial bus system of MELSECNET/10 network system (programmable controller to programmable controller network)

● When using MELSECNET/H network module

When connecting the MELSECNET/H network module to MELSECNET/10 network system, set the network type to the MELSECNET/10 mode.

● Creating network

For the network where a GOT is connected, create a MELSECNET/H network system (programmable controller to programmable controller network) with the MELSECNET/10 mode or a MELSECNET/10 network system (programmable controller to programmable controller network).

The GOT cannot be connected to the following networks.

- MELSECNET/H network system (remote I/O network)
- MELSECNET/10 network system (remote I/O network)

● Applicable range for monitoring

A GOT can only monitor a programmable controller on the network where the GOT is connected. Note that the routing parameter setting is required when monitoring the programmable controller CPU on the other network.

The routing parameter cannot be set with the GT15-75J71LP23-Z and GT15-75J71BR13-Z. Use the GT15-J71LP23-25 or GT15-J71BR13 to set the routing parameter.

● When connecting to QCPU (Q mode)

For MELSECNET/H network module and QCPU (Q mode), use the function version B or later.

● With the redundant QCPU system, the MELSECNET/H extended mode is not available.

● When using the QSCPU

The GOT can only read device data and sequence programs by the ladder monitor function in the QSCPU.

The GOT cannot write any data to the QSCPU.

■ Precautions on setup

● When changing the switch setting

When changing the switch setting after installing the MELSECNET/H or MELSECNET/10 communication unit on the GOT, reset the GOT.

● Correctly solder the connector for the coaxial cable.

Incomplete soldering causes malfunctions.

■ Other precautions

● For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.

● The motion controller (A series) cannot be connected to the remote I/O station.

● When connecting to motion controller CPU (Q series)

- For Q172CPU or Q173CPU

Use the motion controller CPU with the following production numbers.

Q172CPU with N***** or later, Q173CPU with M***** or later

For Q172CPU, Q173CPU, Q172CPUN, or Q173CPUN

For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.

SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later

● Q172nDCPU, CNC C70, and CRnQ-700 only support MELSECNET/H (programmable controller to programmable controller network).

When connecting to MELSECNET/10 (programmable controller to programmable controller network), set MELSECNET/H (programmable controller to programmable controller network) to the MELSECNET/10 mode.

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of MELSECNET/10 connection
 - For the accessible range that can be monitored by GOT
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 10 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

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GOT

2

SOFTWARE

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FUNCTION

4

CONNECTION

CONFIGURATION

5

6

COMPLIANCE

WITH OVERSEAS

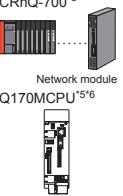
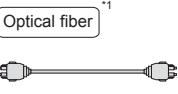
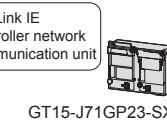
STANDARDS

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GLOSSARY

4.1.8 CC-Link IE controller network connection

System configuration

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> • QCPU (Q mode) • C controller^{*7} • QSCPU • Motion controller CPU (Q series)^{*2*3} • CNC C70^{*3} • CRnQ-700^{*3} • Q170MCPU^{*5*6} 	 *1	 GT15-J71GP23-SX	 GT16/GT15	Max. number of GOTs connected 119 ^{*4} Max. connection distance ~4m
		 Q80BD-J71GP21-SX Q80BD-J71GP21S-SX	 DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 120 ^{*1} Max. connection distance ~4m

*1: For the system configuration of the target device such as connectable CPU type and version, version restrictions of the CC-Link IE controller network module, cable, and the number of GOTs connected, refer to CC-Link IE Controller Network Reference Manual.

*2: GT SoftGOT1000 is not available.

*3: Configure the multiple CPU system.

*4: The overall extension cable length and the length between stations differ depending on the cable type to be used and the total number of stations. For details, refer to CC-Link IE Controller Network Reference Manual.

*5: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

*6: Connect to the first stage of an extension base unit (Q52B/Q55B).

*7: Use a model whose the first five digits of the serial number are 12042 or later.

Available module

CPU series	CC-Link IE controller network module
MELSEC-Q series (Q mode) C controller MELSEC-QS series	QJ71GP21-SX QJ71GP21S-SX



Precautions

Precautions on system

- Applicable range for monitoring
A GOT can only monitor a programmable controller on the network where the GOT is connected. Note that the routing parameter setting is required when monitoring the programmable controller CPU on the other network.
- When using the QSCPU
The GOT can only read device data and sequence programs by the ladder monitor function in the QSCPU. The GOT cannot write any data to the QSCPU.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of CC-Link IE controller network connection
 - For the accessible range that can be monitored by GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- ▶ Chapter 11 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
- ▶ Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

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GLOSSARY

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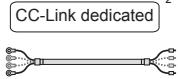
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4.1.9 CC-Link connection (intelligent device station)

System configuration

Target device	Cable	Communication unit	GOT	
<ul style="list-style-type: none"> • QCPU • C controller^{*9} • LCPU • QnA/ACPU (Master/local stations) • Motion controller CPU(Q series)^{*1} • Motion controller CPU(A series) • CNC C70^{*1} • CRnQ-700^{*1}  CC-Link module • Q170MCPU^{*7*8} 		 GT15-J61BT13 ^{*3}		Max. number of GOTs connected 26 Max. connection distance 1200 m ^{*6}
		 GT15-75J61BT13-Z ^{*4*5}		

*1: Configure the multiple CPU system.

*2: For the specifications and inquiries of the CC-Link dedicated cable, refer to the following website.
CC-Link Partner Association website: http://www.cc-link.org/engl/_html/top.html

*3: For connection on the CC-Link network system Ver.2.

For connection on the CC-Link network system Ver.1, set the mode to Ver.1 in [Communication Setting].

*4: Cannot be used on GT155□.

*5: Cannot be used when the GOT is connected to Q00UJCPU, Q00UCPU, Q01UCPU, Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q10UDHCPU, Q13UDHCPU, Q20UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q10UDEHCPU, Q13UDEHCPU, Q20UDEHCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU, Q172DCPU, Q173DCPU, Q170MCPU, CNC C70 or CRnQ-700.

*6: When the CC-Link dedicated cable of 156kbps is used

The maximum overall extension cable length and the cable length between stations differ depending on the cable type to be used or others.

*7: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

*8: Connect to the first stage of an extension base unit (Q52B/Q55B).

*9: Use a model whose the first five digits of the serial number are 12042 or later.

Available module

CPU series	CC-Link module
MELSEC-Q series (Q mode) C controller	QJ61BT11 QJ61BT11N ^{*10}
MELSEC-L	LJ61BT11
MELSEC-QnA series	AJ61QBT11 A1SJ61QBT11
MELSEC-Q series (A mode) MELSEC-A series Motion controller CPU (A series)	AJ61BT11 A1SJ61BT11

*10 Use the model applicable to the CC-Link network system Ver.2 or the CC-Link network system Ver.1 with Ver.2.

Precautions

Precautions on system

When using cyclic transmission

(1) I/O signals from/to master station

Do not turn on reserved output signals among output signals from the master station to a GOT (remote output: RY).

When the reserved output signals are turned on, the programmable controller system may malfunction.

(2) Applicable range for monitoring

Applicable ranges for monitoring remote I/O (RX, RY) and remote register (RW_r, RW_w) differ depending on the master station mode of the CC-Link network system.

Mode of master station	Availability of monitoring	
	Information of CC-Link Ver.1 compatible station	Information of CC-Link Ver.2 compatible station
Remote network mode	○	-
Remote network ver.1 mode	○	-
Remote network ver.2 mode	○	○ ¹
Remote network additional mode	○	○ ¹

○: Monitoring enabled, ×: Monitoring disabled (all 0), -: Creating system disabled

*1 Available only for using GT15-J61BT13 type CC-Link communication unit.

When using transient transmission

(1) CC-Link module on target station

When using transient transmission to communicate with the following CC-Link modules, mount the CC-Link module with the function version B and the software version J or later on a programmable controller.

When communicating with the CC-Link module with the function version A and the software version I or earlier, only the cyclic transmission is available.

- AJ61BT11 • A1SJ61BT11
- AJ61QBT11 • A1SJ61QBT11

(2) Accessible range for monitoring

A GOT can access a programmable controller CPU with the CC-Link module set as the master or local station. The GOT cannot access other networks via the CC-Link module.

Starting GOT with CC-Link connection (intelligent device station)

When the CC-Link connection (intelligent device station) is used, the data link starts in about 10 minutes after starting the GOT.

Precautions on setup

When changing the switch setting after installing the GT15-75J65BT13-Z type CC-Link communication unit on a GOT, reset the GOT.

Setting [Network parameters] of GX Developer

- When [Mode] of the CC-Link module is set to [Remote net (Ver.2 mode)], [Remote station points] can be set. The [Remote station points] setting is a setting for the remote I/O station. For a GOT, use the default value (32 points).
- Set the station information setting to [Ver.1 Intelligent device station] when [Mode] of the CC-Link module is set to [Remote net (Ver.2 mode)] or [Remote net(Additional mode)].

■ Other precautions

- When connecting to motion controller CPU (Q series)
 - For Q172CPU or Q173CPU
Use the motion controller CPU with the following production numbers.
Q172CPU with N***** or later, Q173CPU with M***** or later
 - For Q172CPU, Q173CPU, Q172CPUN, or Q173CPUN
For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later
- For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.
- When an error related to the network occurs as the system alarm
When an error related to the network occurs as the system alarm with the CC-Link connection (intelligent device station), the displayed system alarm cannot be erased even though the error factor is removed.
Restart a GOT to erase the system alarm.



Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of CC-Link connection
- For the accessible range that can be monitored by GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



Chapter 12 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

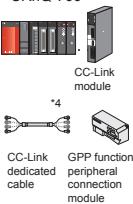
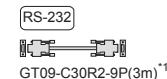
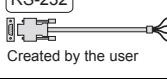
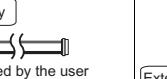
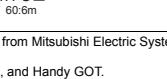
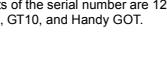
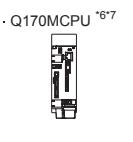
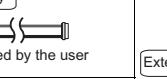
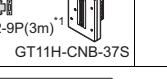


Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

4.1.10 CC-Link connection (via G4)

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> · QCPU (Q mode) · C controller^{*8} · LCPU · Motion controller CPU(Q series)^{*2*9} · CNC C70^{*2*3} · CrnQ-700^{*2*3}  <p>CC-Link module *4 CC-Link dedicated cable GPP function peripheral connection module (AJ65BT-R2N)</p>	      	<p>Not required Built in GOT</p> <p>RS-232  GT15-RS2-9P</p> <p>Not required Built in GOT</p> <p>Not required Built in GOT</p> <p>Not required Built in GOT</p>	 <p>GT16/GT15</p>  <p>GT11</p>  <p>GT105/GT104</p>  <p>GT1030/GT1020</p>  <p>GT16 Handy</p>  <p>GT11 Handy</p>
<ul style="list-style-type: none"> · Q170MCPU^{*6*7} 	 	<p>Not required Built in GOT</p>	 <p>GT11 Handy</p>

*1: Recommended Product. Purchase it from Mitsubishi Electric System & Service Co., Ltd.

*2: Configure the multiple CPU system.

*3: Available only for GT16, GT15, GT11, and Handy GOT.

*4: For the specifications and inquiries of the CC-Link dedicated cable, refer to the following website.

CC-Link Partner Association website: http://www.cc-link.org/eng/t_html/top.html

*5: When the CC-Link dedicated cable of 156Kbps (1200m) and the RS-232 cable (15m) are used.

*6: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

*7: Connect to the first stage of the extension base unit (Q52B/Q55B).

*8: Connect to a model whose the first five digits of the serial number are 12042 or later.

*9: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

2) RS-422 (via peripheral connection module)

Target device	Cable	Communication unit	GOT
	<p>RS-422 RS-422 conversion GT16-C□R4-25P GT16-C□R4-9S 30:3m 200:20m 02:0.2m 100:10m 300:30m</p>	 Built in GOT	 GT16
<ul style="list-style-type: none"> • QCPU (Q mode) • C controller^{*15} • LCPU • Motion controller CPU(Q series)^{*10*16} • CNC C70^{*10*11} • CRnQ-700^{*10*11} 	<p>RS-422 GT15-RS2T4-9P</p> <p>RS-422/485 GT15-R4-9S</p> <p>RS-422 GT105□/GT104□</p>	^{*13} GT15-RS2T4-9P Built in GOT Built in GOT	 GT16/GT15
	<p>RS-422 GT10-C□R4-25P 30:3m 200:20m 100:10m 300:30m</p>	 Built in GOT	 GT1030/GT1020
	<p>RS-422 Connector conversion box External connection GT01-C□R4-25P GT16H-CN8-42S GT16H-C□-42P 30:3m 100:10m 30:3m 60:6m 100:10m 300:30m 100:10m</p>	 Built in GOT	 GT16 Handy
	<p>Relay GT11H-C□R4-25P 15:1.5m</p> <p>RS-422 Connector conversion box External connection GT01-C□R4-25P GT11H-CN8-37S GT11H-C□-37P 30:3m 100:10m 30:3m 60:6m 100:10m 300:30m 100:10m</p>	 GT11H-C□-37P Built in GOT	 GT11 Handy

*10: Configure the multiple CPU system.

*11: Available only for GT16, GT15, GT11, and Handy GOT.

*12: For the specifications and inquiries of the CC-Link dedicated cable, refer to the following website.
CC-Link Partner Association website: http://www.cc-link.org/engl_html/top.html

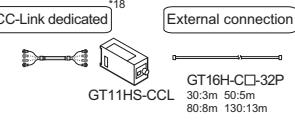
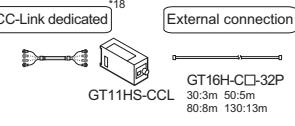
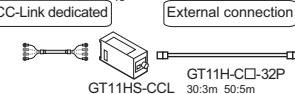
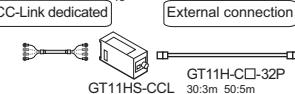
*13: Use the GT15-R4-9S for GT15[□].

*14: When the CC-Link dedicated cable of 156Kbps (1200m) and the RS-422 cable (30m) are used.

*15: Use a model whose the first five digits of the serial number are 12042 or later.

*16: Available only for GT16, GT15, GT11, GT10, and Handy GOT.

3) RS-422

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> · QCPU (Q mode) · C controller*19 · Motion controller CPU(Q series)*17 · CNC C70*17 · CRnQ-700*17  <p>GT11HS-CCL 30.3m 50.5m 80.8m</p>	 <p>GT16H-C□-32P 30.3m 50.5m 80.8m</p>	<p>Not required Built in GOT</p>	 GT16 Handy <p>Max. number of GOTs connected 1 Max. connection distance 13m</p>
 <p>GT11 Handy 30.3m 50.5m 80.8m</p>	 <p>GT11 Handy 30.3m 50.5m 80.8m</p>	<p>Not required Built in GOT</p>	 GT11 Handy

*17: Configure the multiple CPU system.

*18: For the specifications and inquiries of the CC-Link dedicated cable, refer to the following website.

CC-Link Partner Association website: http://www.cc-link.org/eng/t_html/top.html

*19: Use a model whose the first five digits of the serial number are 12042 or later.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	GT105□	RS-232 or RS-422 connections
	GT104□	RS-232 or RS-422 connections
	GT1030	RS-232 connection
	GT1020	RS-422 connection (For GT1030-L□L□LW, GT1020-L□L□LW, MELSEC-FXCPU connection is available only.)

Available module*20

CPU series	CC-Link module	GPP function peripheral connection module
MELSEC-Q series (Q mode) C controller	QJ61BT11 QJ61BT11N	AJ65BT-R2N AJ65BT-G4-S3

*20 GT11 and GT10 can monitor the master station only.

Precautions

■ Precautions on system

- AJ65BT-G4 cannot be connected to a GOT.

■ Precautions on setup

- Setting [Network parameters] of GX Developer
 - When [Mode] of the CC-Link module is set to [Remote net (Ver.2 mode)], [Remote station points] can be set. The [Remote station points] setting is a setting for the remote I/O station. For a GOT, use the default value (32 points).
 - Set the station information setting to [Ver.1 Intelligent device station] when [Mode] of the CC-Link module is set to [Remote net (Ver.2 mode)] or [Remote net (Additional mode)].

■ Other precautions

- When connecting to motion controller CPU (Q series)
 - For Q172CPU or Q173CPU
Use the motion controller CPU with the following production numbers.
Q172CPU with N***** or later, Q173CPU with M***** or later
 - For Q172CPU, Q173CPU, Q172CPUN, or Q173CPUN
For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later
- For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.
For connecting the GOT to the Q17nDCPU, CNC C70, and CRnQ-700, set the system to the CC-Link network system Ver.2.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of CC-Link connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 13 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 22 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
-  Chapter 22 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)

4.1.11 Ethernet connection

- QCPU/C controller/Safety controller/LCPU/Motion controller CPU (Q series)/Motion controller CPU (A series)/CNC C70/Robot controller

System configuration

Target device	Cable	Communication unit	GOT	
• QCPU • C controller ^{*3+12} • QSCPU • LCPU • QnA/ACPU • Motion controller CPU (Q series) ^{*13} • Motion controller CPU (A series) • CNC C70 ^{*12} • CRnQ-700 ^{*1} • MELSECNET/H remote I/O station ^{*3}  Ethernet module	Ethernet 10BASE-T cable ^{*4} 100BASE-TX cable	Not required Built in GOT	GT16 ^{*8}	Max. number of GOTs connected 128 ^{*13} (16 units or less are recommended.) Max. connection distance Max. segment length 100 m
	Ethernet GT15-J71E71-100		GT15	
• Q170MCPU ^{*9+10+11}	10BASE-T cable ^{*4} 100BASE-TX cable	Not required Built in GOT	GT16 Handy	Max. number of personal computers connected 128 ^{*6} (16 units or less are recommended.) Max. connection distance Max. segment length 100 m
	Ethernet	Not required Built in personal computer	DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 128 ^{*6} (16 units or less are recommended.) Max. connection distance Max. segment length 100 m
		Commercially-available Ethernet board ^{*5}		
			GOT	
		Programmable PC CPU controller CPU ^{*6} + module ^{*7}	GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 128 ^{*6} (16 units or less are recommended.) Max. connection distance Max. segment length 100 m

*1: Configure the multiple CPU system.

*2: Connecting to Display I/F

*3: GT SoftGOT1000 is not available.

*4: Use a cable that supports an Ethernet module and Ethernet board/card to be used.

*5: For available Ethernet boards/cards, refer to the following page.

*6: The number of total GT SoftGOT 1000 running in personal computer is included.

*7: Connect the PC CPU module to another programmable controller.

*8: When connecting GT16 of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

*9: Only Q170MCPU programmable controller CPU (No.1) can be connected with GT SoftGOT1000.

*10: Connect to the first stage of an extension base unit (Q52B/Q55B).

*11: PERIPHERAL I/F is not available.

*12: Use a model whose the first five digits of the serial number are 12042 or later.

*13: Up to 16 GOTs can be connected when connecting GT16 or GT16 and universal model QCPU/C controller/LCPU.

Available module

CPU series	Ethernet module ^{*13}	
MELSEC-Q series (Q mode) MELSEC-QS series	QJ71E71-100 QJ71E71-B5 QJ71E71-B2 QJ71E71	
MELSEC-QnA series	AJ71QE71N3-T AJ71QE71N-B5 AJ71QE71N-B2 AJ71QE71N-T AJ71QE71N-B5T AJ71QE71 AJ71QE71-B5	A1SJ71QE71N3-T A1SJ71QE71N-B5 A1SJ71QE71N-B2 A1SJ71QE71N-T A1SJ71QE71N-B5T A1SJ71QE71-B5 A1SJ71QE71-B2
MELSEC-Q series (A mode) MELSEC-A series Motion controller CPU (A series)	AJ71E71N3-T AJ71E71N-B5 AJ71E71N-B2 AJ71E71N-T AJ71E71N-B5T AJ71E71-S3	A1SJ71E71N3-T A1SJ71E71N-B5 A1SJ71E71N-B2 A1SJ71E71N-T A1SJ71E71N-B5T A1SJ71E71-B5-S3 A1SJ71E71-B2-S3

*13 When the A series Ethernet module is used for the QnACPU, the devices that can be monitored are only devices with the same name as the devices in the device range of the AnACPU.

Note that the following devices cannot be monitored.

- Devices newly added to the QnACPU
- Latch relays (L) and step relays (S)
(For the QCPU/QnACPU, the latch relay (L) and step relay (S) are different from the internal relay (M). However, the internal relay is accessed even if the latch relay or the step relay is specified.)
- File register (R)

Available Ethernet board/card for GT SoftGOT1000

Manufacturer	Model	Remark
3COM Corporation	EthernetLink III LAN PC Card	Ethernet board/card
-	Ethernet board included in personal computer as standard	Ethernet board

Precautions

Precautions on system

- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used.
Connect the cable to the system devices, including Ethernet modules, hubs, and transceivers, according to the Ethernet network system to be used.
- When connecting GT16 of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 [GT16 User's Manual \(Hardware\)](#)
- When connecting to the QnA(S)CPU type
For the Ethernet module (QnA series) and programmable controller CPU (QnA/QnASCPU types), use the function version B or later.
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.
- The motion controller (A series) cannot be connected to the remote I/O station.
- Applicable range for monitoring
A GOT can monitor a programmable controller on the network where the GOT is connected and on the other networks. The routing parameter setting is required when monitoring a programmable controller CPU on the other networks.
- When using the QSCPU
The GOT can only read device data and sequence programs by the ladder monitor function in the QSCPU.
The GOT cannot write any data to the QSCPU.

Other precautions

- When connecting to motion controller CPU (Q series)
 - For Q172CPU or Q173CPU
 - Use the motion controller CPU with the following production numbers.
Q172CPU with N***** or later, Q173CPU with M***** or later
 - For Q172CPU, Q173CPU, Q172CPUN, or Q173CPUN
 - For using the SV13, SV22, and SV43, use a motion controller with the following OS installed.
SW6RN-SV13Q□: 00H or later, SW6RN-SV22Q□: 00H or later, SW6RN-SV43Q□: 00B or later
- For connecting the GOT to the multiple CPU system (Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, and Q25HCPU), use CPUs with the function version B or later.
- When the A series Ethernet module is used for the QnACPU, the QnACPU cannot be monitored with GT SoftGOT1000.



Related Manuals

- For details of system configuration and connection cable
► Chapter 8 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - For precautions and restrictions
► Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - For outlined procedure and checking of Ethernet connection
► Chapter 21 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
 - For controllers that can be monitored by GOT and accessible range
► Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)
 - For connection method with Handy GOT
► Chapter 21 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
 - For connection method with GT SoftGOT1000
• For controllers that can be monitored by GT SoftGOT1000 and accessible range
► Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

● FX series (FX3U, FX3UC)

System configuration

Target device	Cable	Communication unit	GOT	
• FX3U • FX3UC  ... •  *6	Ethernet	Not required Built in GOT	GT16	Max. number of GOTs connected 2 (16 units or less are recommended.) Max. connection distance Max. segment length 100 m
	10BASE-T cable ^{*1} 100BASE-TX cable	GT15-J71E71-100	GT15	
	Ethernet Connector conversion box External connection 10BASE-T cable ^{*1} 100BASE-TX cable GT16H-CNB-42S	Not required Built in GOT	GT16 Handy	Max. number of personal computers connected 2 ^{*3} (16 units or less are recommended.) Max. connection distance Max. segment length 100 m
	Ethernet	Not required Built in personal computer	GT SoftGOT1000 + License key for GT SoftGOT1000	
	Commercially-available Ethernet board	DOS/V personal computer	GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 2 ^{*3} (16 units or less are recommended.) Max. connection distance Max. segment length 100 m
	10BASE-T cable ^{*1} 100BASE-TX cable	GT	GT SoftGOT1000 + License key for GT SoftGOT1000	
 ... •  *6	Programmable controller CPU + PC CPU module ^{*4} 	GT SoftGOT1000 + License key for GT SoftGOT1000	GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 2 ^{*3} (16 units or less are recommended.) Max. connection distance Max. segment length 100 m

*1: Use a cable that supports an Ethernet module and Ethernet board/card to be used.

*2: For available Ethernet boards/cards, refer to the following page.

*3: The number of total GT SoftGOT 1000 running in personal computer is included.

*4: Connect the PC CPU module to another programmable controller.

*5: When connecting GT16 of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

*6: When using an Ethernet module with the FX3UC series, FX3uc-1PS-5V or FX2nc-CNV-IF is required.

Available module

CPU series	Ethernet module
MELSEC-FX	FX3U-ENET-L

Available Ethernet board/card for GT SoftGOT1000

Manufacturer	Model	Remark
3COM Corporation	EthernetLink III LAN PC Card	Ethernet board/card
-	Ethernet board included in personal computer as standard	Ethernet board



Precautions

■ Precautions on system

- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used.
Connect the cable to the system devices, including Ethernet modules, hubs, and transceivers, according to the Ethernet network system to be used.
- When connecting GT16 of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 [GT16 User's Manual \(Hardware\)](#)
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.
- Applicable range for monitoring
A GOT can monitor a programmable controller on the network where the GOT is connected and on the other networks. The routing parameter setting is required when monitoring a programmable controller CPU on the other networks.



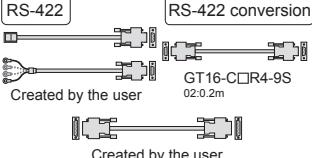
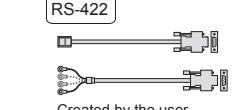
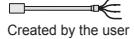
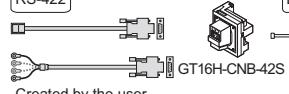
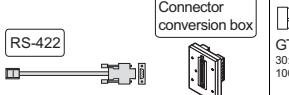
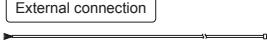
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of Ethernet connection
 - For controllers that can be monitored by GOT and accessible range
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 8 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
 - Chapter 21 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
 - Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

4.2 Other MITSUBISHI controllers

4.2.1 Inverter connection

System configuration

Target device	Cable	Communication unit	GOT
 Inverter   FREQROL500 series FREQROL700 series	 <p>RS-422 RS-422 conversion Created by the user GT16-C□R4-9S 02:0.2m</p> <p>Created by the user</p>	<p>Not required Built in GOT</p>	 GT16
	 <p>RS-422 Created by the user</p>	<p>RS-422 conversion *1 GT15-RS2T4-9P</p> <p>RS-422/485 GT15-RS4-9S</p>	 GT16/GT15
		<p>Not required Built in GOT</p>	 GT11
		<p>Not required Built in GOT</p>	 GT105□/GT104□
	 <p>Created by the user</p>	<p>Not required Built in GOT</p>	 GT1030/GT1020
	 <p>Connector conversion box External connection RS-422 GT16H-CNB-42S 30:3m 60:6m 100:10m</p> <p>Created by the user</p>	<p>Not required Built in GOT</p>	 GT16 Handy
	 <p>Created by the user</p>		
	 <p>Connector conversion box External connection RS-422 GT11H-CNB-37P 30:3m 60:6m 100:10m GT11H-CNB-37S Created by the user</p>	<p>Not required Built in GOT</p>	 GT11 Handy
	 <p>External connection GT11H-C□ 30:3m 60:6m</p>		

*1: Use GT15-RS4-9S for using GT155□.

Connectable models

Model	RS-422	RS-232
FREQROL-S500/S500E	○	×
FREQROL-E500	○	×
FREQROL-F500/F500L	○	×
FREQROL-F500J	○	×
FREQROL-A500/A500L	○	×
FREQROL-V500/V500L	○	×
FREQROL-E700	○	×
FREQROL-F700	○	×
FREQROL-A700	○	×
FREQROL-D700	○	×

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit)
GT11	RS-232 or RS-422 connections Bus connection	GT115□-Q□BD GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□HS-Q□BD
GT10	GT105□ RS-232 or RS-422 connections	GT105□-Q□BD
	GT104□ RS-232 or RS-422 connections	GT104□-Q□BD
	GT1030 GT1020 RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW
		GT1030-L□D□DW, GT1030-L□L□DW, GT1020-L□D/L□DW, GT1020-L□L/L□DW (For GT1030-L□L□DW, GT1020-L□L/L□DW, MELSEC-FXCPU connection is available only.)



Precautions

Precautions on system

- Clock setting of GOT
The inverter does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).
- Do not change various communication parameters of the inverter with a GOT.
When the communication parameters of the inverter are changed, the GOT cannot communicate with the inverter.
- Be sure to use GD for the screen switching device and system information device.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of inverter connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 14 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 23 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
- Chapter 53 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)

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GLOSSARY

COMPLIANCE
WITH OVERSEAS
STANDARDS

FUNCTION

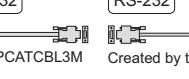
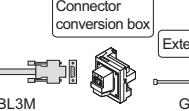
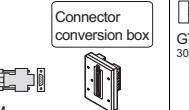
SOFTWARE

GOT

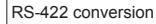
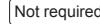
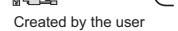
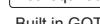
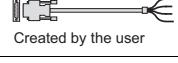
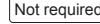
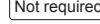
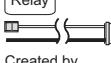
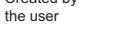
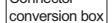
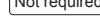
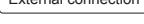
4.2.2 Servo amplifier connection

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT
• Servo amplifier  MELSERVO-J2-Super series MELSERVO-J2M series MELSERVO-J3 series	 RS-232 MR-CPCATCBL3M 3M:3m	Not required Built in GOT	
	 RS-232 Created by the user	RS-232 GT15-RS2-9P	
	 RS-232 RS-232 MR-CPCATCBL3M 3M:3m Created by the user	Not required Built in GOT	
	 RS-232 MR-CPCATCBL3M 3M:3m GT16H-CN-42S 30:3m Connector conversion box External connection	Not required Built in GOT	
	 Relay Created by the user	Not required Built in GOT	
	 RS-232 MR-CPCATCBL3M 3M:3m GT11H-CN-37S 30:3m Connector conversion box External connection	Not required Built in GOT	
	 External connection GT11H-C□ 30:3m 60:6m		

2) RS-422

Target device	Cable	Communication unit	GOT
	   Created by the user	 Built in GOT	 GT16
	  Created by the user	 *1  GT15-RS2T4-9P	 GT16/GT15
	  Created by the user	 Built in GOT	 GT11
Servo amplifier			 GT105□/GT104□
MELSERVO-J2-Super series MELSERVO-J2M series MELSERVO-J3 series	  Created by the user	 Built in GOT	 GT1030/GT1020
	  Created by the user  GT16H-CNB-42S 30:3m 60:6m 100:10m	 Built in GOT	 GT16 Handy
	  Created by the user		
	  Created by the user  GT11H-CNB-37S 30:3m 60:6m 100:10m	 Built in GOT	 GT11 Handy
	 		

*1: Use GT15-RS4-9S for using GT15□.

Connectable models

Model	RS-422	RS-232
MELSERVO-J3 series	MR-J3□A	○
	MR-J3□T	○
MELSERVO-J2-Super series	MR-J2S-□A	○
	MR-J2S-□CP	○
	MR-J2S-□CL	○
MELSERVO-J2M series	MR-J2M-P8A	○
	MR-J2M□DU	○

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
GT10	Handy GOT RS-232 or RS-422 connections	GT115□HS-Q□BD
	GT105□ GT104□ GT1030 GT1020	GT105□-Q□BD GT104□-Q□BD GT1030-L□D/L□DW, GT1020-L□D/L□DW2 GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)



Precautions

Precautions on system

- Clock setting of GOT
The servo amplifier does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).

Other precautions

- Test operation of servo amplifier with GOT
When communication between a GOT and a servo amplifier is aborted for 0.5[ms] or more during the test operation of the servo amplifier, the servo amplifier makes the servo motor decelerate and stop, and then the servo motor locks.
During the test operation of the servo amplifier, keep the communication between the GOT and servo amplifier executed with monitoring the servo amplifier status and others.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of servo amplifier connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 15 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 24 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
- Chapter 54 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)

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GLOSSARY

4.2.3 Robot controller connection

System configuration

Target device	Cable	Communication unit	GOT	
CRnD-700	Ethernet 10BASE-T cable *1*5 100BASE-TX cable	Not required Built in GOT	GT16	Max. number of GOTs connected 1
	Ethernet GT15-J71E71-100	GT15		
	Ethernet 10BASE-T cable *1 100BASE-TX cable GT16H-CNB-42S GT16H-C□-42P 30:3m	Not required Built in GOT	GT16 Handy	Max. connection distance Max. segment length 100 m
	Ethernet 10BASE-T cable *1*5 100BASE-TX cable	Not required Built in personal computer Commercially-available Ethernet board	DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 1*3
		*2	Commercially-available Ethernet board GT SoftGOT1000 + License key for GT SoftGOT1000	
		Programmable controller CPU module	GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 1*3
		*4	GT SoftGOT1000 + License key for GT SoftGOT1000	Max. connection distance Max. segment length 100 m

*1: Use a cable that supports a robot controller and Ethernet board/card to be used.

*2: For available Ethernet boards/cards, refer to the following page.

*3: The number of total GT SoftGOT1000 running in personal computer is included.

*4: Connect the PC CPU module to another programmable controller.

*5: When connecting GT16 of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

Available Ethernet board/card for GT SoftGOT1000

Manufacturer	Model	Remark
3COM Corporation	EthernetLink III LAN PC Card	Ethernet board/card
-	Ethernet board included in personal computer as standard	Ethernet board

Precautions

Precautions on system

- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used.
Connect the cable to appropriate devices such as robot controllers and hubs according to the Ethernet network system to be used.
- When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)
- Communication via network system
A GOT cannot access a programmable controller on other network via a programmable controller (the network module, Ethernet module, and others) on the network where the GOT is connected.
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.

Related Manuals

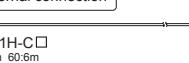
- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of Robot controller connection
 - For the accessible range that can be monitored by GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 16 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
Chapter 25 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
- Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

4.2.4 CNC (MELDAS C6/C64) connection

● Direct CPU connection

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT	
MELDAS C6/C64	 Created by the user	Not required Built in GOT	 GT16/GT15	Max. number of GOTs connected 1 Max. connection distance 15 m
	 Created by the user	RS-232  GT15-RS2-9P	 GT11	
	 Created by the user	Not required Built in personal computer	 GT16 Handy	
	 Created by the user			
	 Created by the user	External connection GT11H-CN8-37P 30:3m	Not required Built in personal computer	Max. number of GOTs connected 1 Max. connection distance 6 m
	 GT11H-CN8 30:3m 60:6m		 GT11 Handy	
	 Created by the user	Not required Built in personal computer	 DOS/V personal computer + License key for GT SoftGOT1000	Max. number of personal computers connected 1 Max. connection distance 15 m
		Commercially-available RS-232 board		
			GOT	
		 Programmable controller CPU + module	 GT SoftGOT1000 + License key for GT SoftGOT1000	Max. number of personal computers connected 1 Max. connection distance 15 m

2) RS-422

Target device	Cable	Communication unit	GOT
	<p>RS-422</p> <p>RS-422 conversion</p> <p>F311 cable GT01-C□R4-25P GT16-C□R4-9S 30:3m 100:10m 02:0.2m 200:20m 300:30m</p>	<p>Not required</p> <p>Built in GOT</p>	<p>GT16</p> <p>Max. number of GOTs connected 1 Max. connection distance 30.7 m</p>
• MELDAS C6/C64	<p>RS-422</p> <p>F311 cable GT01-C□R4-25P 30:3m 100:10m 200:20m 300:30m</p>	<p>RS-422 conversion *1</p> <p>GT15-RS2T4-9P</p>	<p>GT16/GT15</p> <p>Max. number of GOTs connected 1 Max. connection distance 30.5 m</p>
	<p>RS-422</p> <p>F311 cable GT01-C□R4-25P 30:3m 100:10m 200:20m 300:30m</p>	<p>Not required</p> <p>Built in GOT</p>	<p>GT11</p>
	<p>RS-422</p> <p>F311 cable GT01-C□R4-25P 30:3m</p> <p>Connector conversion box</p> <p>External connection</p> <p>GT16H-CN4-42P 30:3m 60:6m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	<p>GT16 Handy</p> <p>Max. number of GOTs connected 1 Max. connection distance 13 m</p>
	<p>RS-422</p> <p>F311 cable GT01-C□R4-25P 30:3m 100:10m</p> <p>Relay</p> <p>Created by the user</p> <p>External connection</p>		<p>GT11 Handy</p>
	<p>RS-422</p> <p>F311 cable GT01-C□R4-25P 30:3m 100:10m</p> <p>Connector conversion box</p> <p>GT11H-CN4-37P 30:3m 60:6m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	

*1: Use GT15-RS4-9S for using GT15.

Connectable models

Series	Model	Connection type		
		Direct CPU connection		
		GT16/GT15	GT11	GT SoftGOT1000
MELDAS C6/C64	FCA C6	○	○	○
	FCA C64	○	○	○

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDA, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□HS-Q□BD



Precautions

Precautions on system

- Version of MELDAS C6/C64
For MELDAS C6/C64, use the NC system software version D0 or later.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of CNC connection
 - For the accessible range that can be monitored by GOT
 - For connection method with Handy GOT
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 17 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 26 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
- Chapter 55 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)
- Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

● MELSECNET/10 connection

System configuration

1) Optical loop

Target device	Cable	Communication unit	GOT	
• MELDAS C6/C64 Extension unit	Optical fiber ^{*1}	MELSEC NET/H ^{*3} GT15-J71LP23-25	GT16/GT15	Max. number of GOTs connected 63
		MELSEC NET/10 ^{*2} GT15-75J71LP23-Z	GT15	Max. connection distance ^{*4}

2) Coaxial bus

Target device	Cable	Communication unit	GOT	
• MELDAS C6/C64 Extension unit	Coaxial ^{*1}	MELSEC NET/H ^{*3} GT15-J71BR13	GT16/GT15	Max. number of GOTs connected 31
		MELSEC NET/10 ^{*2} GT15-75J71BR13-Z	GT15	Max. connection distance ^{*4}

*1: For the cable type to be used, refer to the MELSECNET/H reference manual.

*2: Cannot be used on GT15□.

*3: Select the MELSECNET/10 mode in [Communication Settings].

*4: The overall distance and the distance between stations vary depending on the cable types to be used and the total number of stations.
For details, refer to the following manuals.

- MELDAS C6/C64/C64T CONNECTION AND MAINTENANCE MANUAL
- C6/C64/C64T NETWORK INSTRUCTION MANUAL

Connectable models

Series	Model	Connection type		
		MELSECNET/10 connection		
		GT16/GT15	GT11	GT SoftGOT1000
MELDAS C6/C64	FCA C6	○	×	×
	FCA C64	○	×	×

Available module for MELDAS C6/C64 connection

Series	MELSECNET/H module (NET/10 mode), MELSECNET/10 module		
	Optical loop	Coaxial bus	
MELDAS C6/C64	FCU6-EX879		FCU6-EX878

Precautions

■ Precautions on system

● Connectable network

A GOT is connected to the following network systems as a normal station.

- Optical loop system of MELSECNET/10 network system (programmable controller to programmable controller network)
- Coaxial bus system of MELSECNET/10 network system (programmable controller to programmable controller network)

● When using MELSECNET/H network module

When connecting the MELSECNET/H network module to MELSECNET/10 network system, set the network type to the MELSECNET/10 mode.

● Creating network

For the network including a GOT, create a MELSECNET/H network system (programmable controller to programmable controller network) with the MELSECNET/10 mode or a MELSECNET/10 network system (programmable controller to programmable controller network).

The GOT cannot be connected to the following networks.

- MELSECNET/H network system (remote I/O network)
- MELSECNET/10 network system (remote I/O network)

● Applicable range for monitoring

A GOT can only monitor a programmable controller and CNC on the network where the GOT is connected. Note that the routing parameter setting is required when monitoring the programmable controller CPU and CNC on the other networks.

The routing parameter cannot be set with the GT15-75J71LP23-Z and GT15-75J71BR13-Z. Use the GT15-J71LP23-25 or GT15-J71BR13 to set the routing parameter.

● Version of CNC

For MELDAS C6/C64, use the NC system software version D0 or later.

● Starting GOT with CNC connection (MELSECNET/10 connection)

When the CNC connection (MELSECNET/10 connection) is used, the data link starts in about 10 minutes after starting the GOT.

● When an error related to the network occurs as the system alarm

When an error related to the network occurs as the system alarm with CNC connection (MELSECNET/10 connection), the displayed system alarm cannot be erased even though the error factor is removed. Restart a GOT to erase the system alarm.

■ Precautions on setup

● When changing the switch setting

When changing the switch setting after installing the MELSECNET/H or MELSECNET/10 communication unit on the GOT, reset the GOT.

● Correctly solder the connector for the coaxial cable.

Incomplete soldering causes malfunctions.

Related Manuals

• For details of system configuration and connection cable



Chapter 17 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

• For precautions and restrictions

• For outlined procedure and checking of
MELSECNET/10 connection

• For the accessible range that can be monitored by
GOT

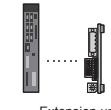
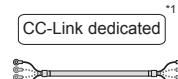


Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

* For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

●CC-Link (intelligent device station) connection

System configuration

Target device	Cable	Communication unit	GOT	
• MELDAS C6/C64 	 ^1	CC-Link 	GT16/GT15	Max. number of GOTs connected 26
		CC-Link 	GT15	Max. connection distance ⁴

*1: For the specifications and inquiries of the CC-Link dedicated cable, refer to the following website.

CC-Link Partner Association website: http://www.cc-link.org/eng/t_html/top.html

*2: For connection on the CC-Link network system Ver.2. For connection on the CC-Link network system Ver.1, set the mode to Ver.1 in [Communication Setting].

*3: Cannot be used on GT155□.

*4: The overall distance and the distance between stations vary depending on the cable types to be used and the total number of stations. For details, refer to the following manuals.

•MELDAS C6/C64/C64T CONNECTION AND MAINTENANCE MANUAL

•C6/C64/C64T NETWORK INSTRUCTION MANUAL

Connectable models

Series	Model	Connection type		
		CC-Link (intelligent device station) connection		
		GT16/GT15	GT11	GT SoftGOT1000
MELDAS C6/C64	FCA C6	○	×	×
	FCA C64	○	×	×

Available module for MELDAS C6/C64 connection

Series	CC-Link module
MELDAS C6/C64	FCU6-HR865



Precautions

■ Precautions on system

- When using cyclic transmission
 - (1) I/O signals from/to master station
Do not turn on reserved output signals among output signals from the master station to a GOT (remote output: RY).
When the reserved output signals are turned on, MELDAS (C6/C64) may malfunction.
 - (2) CC-Link mode
The CNC is not applicable to the CC-Link network system Ver.2.
- When using transient transmission
 - (1) Accessible range for monitoring
A GOT can access a programmable controller CPU with the CC-Link module set as the master or local station. The GOT cannot access other networks via the CC-Link module.
- Starting GOT with CC-Link connection (intelligent device station)
When the CC-Link connection (intelligent device station) is used, the data link starts in about 10 minutes after starting the GOT.
- Version of MELDAS C6/C64
For MELDAS C6/C64, use the NC system software version D0 or later.

■ Precautions on setup

- When changing the switch setting after installing the GT15-75J61BT13-Z type CC-Link communication unit on a GOT, reset the GOT.
- Setting [Network parameters] of GX Developer
 - When [Mode] of the CC-Link module is set to [Remote net (Ver.2 mode)], [Remote station points] can be set. The [Remote station points] setting is a setting for the remote I/O station. For a GOT, use the default value (32 points).
 - Set the station information setting to [Ver.1 Intelligent device station] when [Mode] of the CC-Link module is set to [Remote net (Ver.2 mode)] or [Remote net (Additional mode)].

■ Other precautions

- When an error related to the network occurs as the system alarm
When an error related to the network occurs as the system alarm with the CC-Link connection (intelligent device station), the displayed system alarm cannot be erased even though the error factor is removed.
Restart a GOT to erase the system alarm.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of CC-Link connection
 - For the accessible range that can be monitored by GOT
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 17 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)
- Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

●Ethernet connection

System configuration

Target device	Cable	Communication unit	GOT
MELDAS C6/C64 Extension unit	Ethernet 10BASE-T cable *1 100BASE-TX cable	Not required Built in GOT	GT16 *4
	Ethernet Connector conversion box External connection 10BASE-T cable *1 100BASE-TX cable GT16H-CB-42P 30.3m	GT15-J71E71-100	GT15
	Ethernet 10BASE-T cable *1 100BASE-TX cable GT16H-CB-42P 30.3m	Not required Built in GOT	GT16 Handy
	Ethernet 10BASE-T cable *1 100BASE-TX cable	Not required Built in personal computer Commercially-available Ethernet board *2	DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000 Max. number of personal computers connected *3 128 (16 units or less are recommended.) Max. connection distance Max. segment length 100 m
GOT		Programmable controller CPU module + PC CPU module	GT SoftGOT1000 + License key for GT SoftGOT1000 Max. number of personal computers connected *3 128 (16 units or less are recommended.) Max. connection distance Max. segment length 100 m

*1: Use a cable that supports an Ethernet module and Ethernet board/card to be used.

*2: For available Ethernet boards/cards, refer to the following page.

*3: The number of total GT SoftGOT 1000 running in personal computer is included.

*4: When connecting GT16 of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

Connectable models

Series	Model	Connection type		
		Ethernet connection		
		GT16/GT15	GT11	GT SoftGOT1000
MELDAS C6/C64	FCA C6	○	×	×
	FCA C64	○	×	×

Available Ethernet board/card for GT SoftGOT1000

Manufacturer	Model	Remarks
3COM Corporation	EthernetLink III LAN PC Card	Ethernet board/card
-	Ethernet board included in personal computer as standard	Ethernet board

Available module for MELDAS C6/C64 connection

Series	Ethernet module
MELDAS C6/C64	FCU6-EX875

Precautions

■ Precautions on system

- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used.
Connect the cable to the system devices, including Ethernet modules, hubs, and transceivers, according to the Ethernet network system to be used.
- When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)
- Communication via network system
A GOT cannot access a CNC on other network via a CNC (the network module, Ethernet module, and others) on the network where the GOT is connected.
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.
- Applicable range for monitoring
A GOT can only monitor a programmable controller on the network where the GOT is connected. Note that the routing parameter setting is required when monitoring the programmable controller CPU on the other network.
- Version of MELDAS C6/C64
For MELDAS C6/C64, use the NC system software version D0 or later.

■ Precautions on setup

- A GOT cannot access a MELDAS (C6/C64) on other network via a MELDAS (C6/C64) (the network module, Ethernet module, and others) on the network where the GOT is connected.
- Connecting Ethernet cable
Keep a distance between the Ethernet cable and power line or electric power line, and run the Ethernet cable through ferrite cores (included) at positions close to control devices so that the Ethernet cable is not affected by noise.

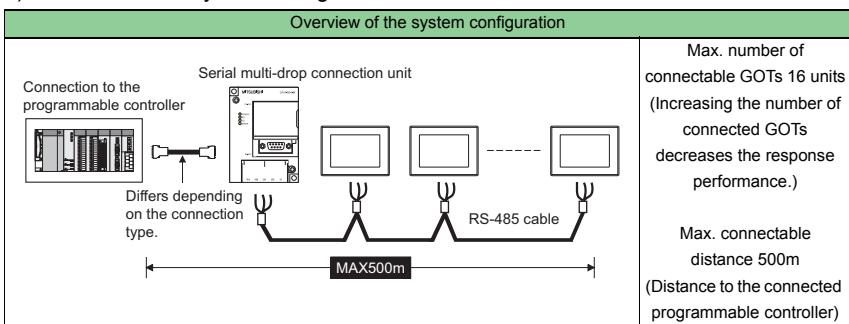
Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of CNC connection
 - For controllers that can be monitored by GOT and accessible range
 - For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 17 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 3 in GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3 (SH-080868ENG)
-  Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)

4.2.5 GOT Multi-drop connection

System configuration

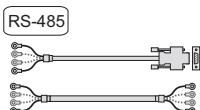
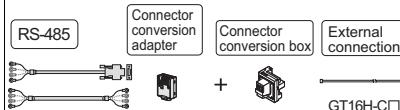
1) Overview of the system configuration



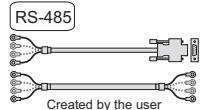
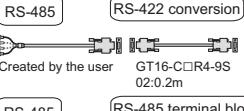
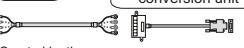
2) Connection to the 1st GOT

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> Serial multi-drop connection unit Programmable controller <p>For the system configuration, refer to the following.</p> <ul style="list-style-type: none"> 4.1.4 Direct CPU connection 4.1.5 Computer link connection 	<p>Created by the user</p> <p>Created by the user GT16-C□R4-9S 02:0.2m</p> <p>Created by the user FA-LTBGTR4CBL□ 05:0.5m 10:10m 20:20m 30:30m</p>	<p>Not required</p> <p>Built in GOT</p>	GT16
	<p>Created by the user</p>	<p>RS-422/485</p> <p>GT15-RS4-TE</p>	GT15-RS4-TE
		<p>RS-422/485</p> <p>GT15-RS4-9S</p>	GT16/GT15
		<p>RS-422 conversion</p> <p>GT15-RS2T4-9P</p>	GT15-RS2T4-9P

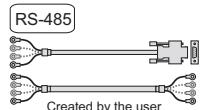
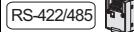
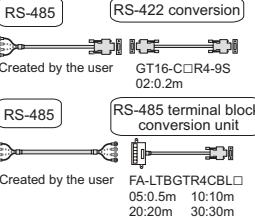
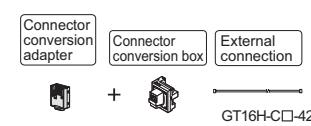
*1: For using GT15□, use GT15-RS4-9S.

Target device	Cable	Communication unit	GOT
Serial multi-drop connection unit Programmable controller For the system configuration, refer to the following. <ul style="list-style-type: none">• 4.1.4 Direct CPU connection• 4.1.5 Computer link connection	 Created by the user	 GT10-9PT5S  Built in GOT	
		 GT10-9PT5S  Built in GOT	
		 Built in GOT	
	 Created by the user GT10-9PT5S GT16H-CB-42P 30:3m 60:6m 100:10m	 Built in GOT	

3) Connection to the 2nd or later GOTs

GOT	Cable	Communication unit	GOT
		 Built in GOT	
	 Created by the user	 GT15-RS4-TE	
	 Created by the user GT16-CB-R4-9S 02:0.2m	 GT15-RS4-9S	
	 Created by the user FA-LTBGTRACBLO 05:0.5m 10:10m 20:20m 30:30m	 GT15-RS2T4-9P ²	
	The details of connections differ depending on the connected GOT models.	 GT10-9PT5S  Built in GOT	

²: For using GT155, use GT15-RS4-9S.

GOT	Cable	Communication unit	GOT
GT105□/GT104□	 <p>RS-485 Created by the user</p>	 <p>RS-422/485 GT10-9PT5S</p>	GT105□/GT104□
GT1030/GT1020	 <p>RS-485 RS-422 conversion Created by the user GT16-C□R4-9S 02:0.2m</p> <p>RS-485 RS-485 terminal block conversion unit Created by the user FA-LTBGTR4CBL□ 05:0.5m 10:10m 20:20m 30:30m</p> <p>The details of connections differ depending on the connected GOT models.</p>	<p>Not required Built in GOT</p>	GT1030/GT1020
GT16 Handy	 <p>Connector conversion adapter Connector conversion box External connection + GT16H-C□-42P GT10-9PT5S GT16H-CNB-42S 30:3m</p>	<p>Not required Built in GOT</p>	GT16 Handy

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	GT105□	GT105□-Q□BD
	GT104□	GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	RS-422 connection	GT1030-L□D/L□DW, GT1030-L□U/L□LW, GT1020-L□D/L□DW, GT1020-L□U/L□LW (For GT1030-L□U/L□LW, GT1020-L□U/L□LW, MELSEC-FXCPU connection is available only.)



Precautions

Precautions on system

Setting the station number of GOTs

Set the station number not to overlap with other station numbers. When station numbers are overlapping, the GOTs with overlapped station numbers cannot be monitored properly.

Maintenance functions

The GOT maintenance functions are not available during the GOT multi-drop connection. For the GOT maintenance functions, refer to the following.

☞ GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3

☞ GT16 User's Manual (Hardware)

☞ GT15 User's Manual

System alarm (GT16 and GT15 only)

The system alarm displays the alarm of the multi-drop unit. Alarms of connected programmable controllers are not displayed.

Starting the serial multi-drop connection unit

The master module detects the connected slave GOTs at the startup. Slave stations which were not detected at this time may take some time to be detected. Start the master module after the slave GOTs are started and in the communication enabled status.

Updating cycle of devices

- The updating cycle of the devices on the screen may delay as the total number of connected slave GOTs and GOT devices increases. In this case, reducing the number of GOT devices is recommended. (Consider the total number of 500 points as a guide)
In the case that time-out error occurs, the time-out period should be increased from the communication settings of slave GOTs.
- When device numbers are randomly set, the updating cycle of the devices is longer than in a continuous setting. Setting device numbers continuously is recommended.
- Screen switching may take some time depending on the number and combination of the devices. This affects the updating cycle of other slave station devices.



Related Manuals

For details of system configuration and connection cable



Chapter 18 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

For precautions and restrictions

For outlined procedure and checking of GOT multi-drop connection

For the accessible range that can be monitored by GOT



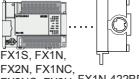
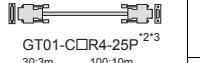
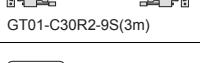
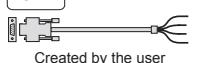
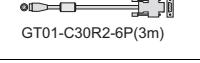
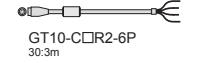
Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)

* For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.2.6 Multiple-GT11/GT10 connection

System configuration

1) When connecting the first controller with RS-422^{*1}

Target device	Cable	GOT	Cable	GOT
· QCPU (1)  · A/QnACPU (2)  · FX series (3)  FX1S, FX1N, FX2N, FX1NC, FX2NC, FX3U, FX1N-422BD, FX3UC, FX2N-422BD	 FA-CNV□CBL ^{*6} GT01-C□R4-25P 2402:0.2m 30:3m 100:10m 2405:0.5m 200:20m 300:30m	    	 RS-232 GT01-C30R2-9S(3m)	 GT11
	 GT101-C□R4-25P ^{*2} ^{*3} 30:3m 100:10m 200:20m 300:30m		 Relay External connection Created by the user ^{*5} GT11H-C□-37P 30:3m 60:6m	 Handy GOT
	 GT101-C□R4-8P ^{*4} 10:1m 30:3m 100:10m 200:20m 300:30m		 RS-232 GT01-C30R2-9S(3m)	 GT105□/GT104□
	 FA-CNV□CBL ^{*6} GT10-C□R4-25P 2402:0.2m 30:3m 2405:0.5m 100:10m		 RS-422 Created by the user	 GT1030/GT1020
	 GT10-C□R4-25P ^{*2} ^{*3} 30:3m 100:10m		 RS-232 GT01-C30R2-6P(3m)	 GT105□/GT104□
	 GT10-C□R4-8P ^{*4} 10:1m 100:10m 30:3m		 RS-232 GT10-C□R2-6P 30:3m	 GT1030/GT1020 ^{*7}

*1: GT11 and GT10 cannot be connected together.

*2: Used for connecting to (1).

*3: Used for connecting to (2).

*4: Used for connecting to (3).

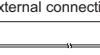
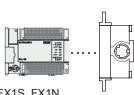
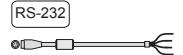
*5: Used for using GT11H-C□-37P.

*6: The FA-CNV□CBL is Recommended Product.

Purchase the cable from MITSUBISHI ELECTRIC ENGINEERING CO., LTD.

*7: Available only for RS-232 interface (built into GOT).

2) When connecting the first controller with RS-232 *8

Target device	Cable	GOT	Cable	GOT
· QCPU (4) 	GT01-C30R2-6P(3m)*9	GT11	 Created by the user	GT11
			  Created by the user **11 GT11H-C□ -37P 30:3m 60:6m 100:10m GT11H-C□ 30:3m 60:6m 100:10m	Handy GOT
· FX series (5)  FX1S, FX1N, FX2N, FX1NC, FX2NC, FX3U, FX3U-232BD, FX3U-232ADP, FX3UC	GT01-C30R2-9S(3m)*10	GT105□/GT104□	 Created by the user	GT105□/GT104□
			 Created by the user	GT1030/GT1020
	GT10-C30R2-6P(3m)*9	GT1030/GT1020	 GT01-C30R2-6P(3m)	GT105□/GT104□
			 GT10-C30R2-6P 30:3m	GT1030/GT1020*12

*8: GT11 and GT10 cannot be connected together.

*9: Used for connecting to (4).

*10: Used for connecting to (5).

*11: Used for using GT11H-C□ -37P.

*12: Available only for RS-232 interface (built into GOT).

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT11	RS-232 or RS-422 connections	GT11□-Q□BD
	Bus connection	GT11□-Q□BDQ, GT11□-Q□BDA
	Handy GOT	GT11□-HS-Q□BD
GT10	RS-232 or RS-422 connections	GT105□-Q□BD
	RS-232 or RS-422 connections	GT104□-Q□BD
	RS-232 connection	GT1030-L□D/L□DW, GT1020-L□D/L□DW2
	RS-422 connection	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Precautions

■ Precautions on system

- When connecting a GOT to the MITSUBISHI programmable controller with the following connection type, the multiple-GT11/GT10 connection function can be used.
 - Direct CPU connection
- GOT communication timing

Adjust the communication timing as described below so that GOTs communicate with a controller (MITSUBISHI programmable controller) in number order (starting from the first connected GOT) after the GOTs are turned on.

When the communication is disabled, retry the communication. A communication error occurs when the time-out period passes.

 - (1) When turning on GOTs simultaneously

When it takes a long time to start communication of the second GOT, a communication error may occur.

For the time that the startup screen is displayed, set the longer time for the second GOT than the first GOT. (Example: First GOT (5 minutes) → Second GOT (10 minutes))

A GOT does not communicate with a controller during displaying the startup screen.

For adjusting the time of the startup screen, refer to following.

 GT11 User's Manual
 GT10 User's Manual
 - (2) When turning on GOTs respectively

When the first GOT is turned on sometime after the second GOT is turned on, the communication start of the second GOT delays. Therefore, a communication error may occur on the second GOT.

Turn on a controller, the first GOT, and the second GOT, in that order.
- Using the function with FA transparent function

When connecting multiple GOTs, the FA transparent function cannot be used with connecting a personal computer to the RS-232 interface or USB interface of the GOT.
- Conditions for making GOTs stop monitoring in the system where multiple GOTs are connected

In the system where multiple GOTs are connected, when the following operations are executed on the first GOT (close to the programmable controller), the first GOT stops monitoring, and the second GOT also stops monitoring.

When the first GOT restarts monitoring, the second GOT also restarts monitoring.

 - (1) When the project data is downloaded/uploaded, or OS is installed with GT Designer3
 - (2) When a GOT is set up
- When power-off of a programmable controller occurs in the system where multiple GOTs are connected

When the power-off of a programmable controller occurs or when the communication between a programmable controller and the first GOT stops because of the communication cable disconnection and others, time-out wait occurs for the communication request from the second GOT to the first GOT. As a result, it takes a long time to restart communications between the programmable controller and the first GOT.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of multiple-GT11/GT10 connection
- For the accessible range that can be monitored by GOT
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



Chapter 19 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)



Chapter 3 in GOT1000 Series Connection Manual
(Mitsubishi Products) for GT Works3 (SH-080868ENG)



Chapter 56 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)

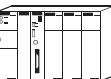
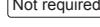
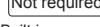
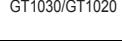
4.3 Third Party Programmable Controller

4.3.1 Connection type

The following shows connection with a third party programmable controller. The available connection type and GOT differ according to the manufacturer. For details, refer to the section for each programmable controller.

System configuration

1) RS-232

Target device	cable	Communication unit	GOT
• Third party programmable controller   	 Recommended Product ^{**1} or Created by the user	 Not required Built in GOT	 GT16/GT15
		 RS-232  GT15-RS2-9P	 GT11
		 Not required Built in GOT	 GT105□/GT104□
		 Not required Built in personal computer	 DOS/V personal computer
		 Commercially-available Ethernet board	 DOS/V personal computer + License key for GT SoftGOT1000
	 Created by the user	 Programmable PC CPU controller CPU + module	 GT SoftGOT1000 + License key for GT SoftGOT1000
		 Not required Built in GOT	 GT1030/GT1020
		 Not required Built in GOT	 GT16 Handy

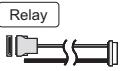
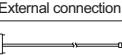
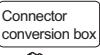
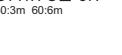
*1: Cables vary depending on the target devices.

For details, refer to 6 EQUIPMENT, SOFTWARE, AND MANUALS and the following.

- GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

- GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

*2: Connect the PC CPU module to another programmable controller.

Target device	cable	Communication unit	GOT
• Third party programmable controller	   Recommended Product ^{*3} or Created by the user GT11H-CNB-37S		
	 GT11H-C□-37P 30:3m 60:6m	 Built in GOT	 GT11 Handy
	 GT11H-C□ 30:3m 60:6m		

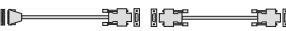
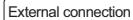
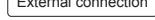
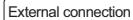
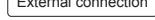
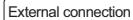
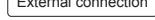
*3: Cables vary depending on the target devices.

For details, refer to 6.EQUIPMENT, SOFTWARE, AND MANUALS and the following.

- GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

- GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

2) RS-422

Target device	cable	Communication unit	GOT					
· Third party programmable controller	   Recommended Product ^{*4} or Created by the user GT16-C□R4-9S 20: 0.2m  Created by the user	 Built in GOT	 GT16					
	  Recommended Product ^{*4} or Created by the user	 ^{*3}  GT15-RS2T4-9P	 GT16/GT15					
		  GT15-RS4-9S	 Built in GOT					
			 Built in GOT					
			 Built in GOT					
		 Built in GOT	 GT105□/GT104□					
			 Built in GOT					
	  Recommended Product ^{*4} or Created by the user GT16H-CN8-42P 30:3m 60:6m 100:10m	 Built in GOT	 GT16 Handy					
	<table border="1"> <tr> <td>   Created by the user </td> <td>   </td> </tr> <tr> <td>   Recommended Product^{*4} or Created by the user GT11H-CN8-37S </td> <td>   GT11H-C□-37P 30:3m 60:6m 100:10m </td> </tr> <tr> <td></td> <td>   GT11H-C□ 30:3m 60:6m </td> </tr> </table>	  Created by the user	 	  Recommended Product ^{*4} or Created by the user GT11H-CN8-37S	  GT11H-C□-37P 30:3m 60:6m 100:10m		  GT11H-C□ 30:3m 60:6m	 Built in GOT
  Created by the user	 							
  Recommended Product ^{*4} or Created by the user GT11H-CN8-37S	  GT11H-C□-37P 30:3m 60:6m 100:10m							
	  GT11H-C□ 30:3m 60:6m							

^{*4}: Cables vary depending on the target devices.

For details, refer to 6.EQUIPMENT, SOFTWARE, AND MANUALS and the following.

- GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3

- GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

^{*5}: Use GT15-RS4-9S for using GT15□.

3) Ethernet

Target device	Cable	Communication unit	GOT	
Third party programmable controller	Ethernet 10BASE-T cable ^{*6} 100BASE-TX cable	Not required Built in GOT	GT16 ^{*8}	
		Ethernet GT15-J71E71-100	GT15	
		Not required Built in GOT	DOS/V personal computer GT SoftGOT1000 + License key for GT SoftGOT1000	
		Commercially-available Ethernet board	GOT	
		Programmable PC CPU controller CPU+ module GT16H-CNB-42S 30.3m 60.6m 100:10m	GT SoftGOT1000 + License key for GT SoftGOT1000	
	Ethernet 10BASE-T cable ^{*6} 100BASE-TX cable	Connector conversion box External connection GT16 Handy	Not required Built in GOT	GT16 Handy

*6: Use a cable that supports an Ethernet module and Ethernet board/card to be used.

*7: Connect the PC CPU module to another programmable controller.

*8: When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

For how to check the function version, refer to the following.

• GT16 User's Manual (Hardware)

4.3.2 OMRON programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15/GT11/GT10				GT SoftGOT1000				Ethernet	
		Computer link connection		Direct CPU connection		Ethernet *2	Computer link connection		Direct CPU connection		
		RS-422	RS-232	RS-422	RS-232		RS-422	RS-232	RS-422	RS-232	
SYSMAC CPM	CPM1A	x	○	x	x	x	x	x	x	x	
	CPM1										
	CPM2A										
	CPM2C										
SYSMAC CQM1H	CQM1H	○	x	x	x	x	x	x	x	x	
SYSMAC CJ1	CJ1H										
	CJ1G										
	CJ1M										
SYSMAC CJ2	CJ2H	○	x	x	x	x	x	x	x	x	
SYSMAC CP1	CP1H										
	CP1L										
	CP1E										
SYSMAC α	C200HX	○	x	x	x	x	x	x	x	x	
	C200HG										
	C200HE										
SYSMAC CS1	CS1H	○	x	x	x	x	x	x	x	x	
	CS1G										
	CS1D										
SYSMAC CVM1/CV	CV500	x	x	x	x	x	x	x	x	x	
	CV1000										
	CV2000										
	CVM1										
-	CQM1	○	○	x	x	x	x	x	x	x	
	C200HS										
	C200H										
	C1000H										
	C2000H										

*1 CQM1-CPU11 does not have the RS-232 interface and cannot connect to a GOT.

*2 Available only for GT16 and GT15.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used	
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)	
	Connections other than the above	All the models (communication units connected to the GOT main unit)	
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD	
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)	
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)	
	RS-232 or RS-422 connections	GT115□-Q□BD	
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA	
GT10	Handy GOT	GT115□-HS-Q□BD	
	GT105□	RS-232 or RS-422 connections	GT105□-Q□BD
	GT104□	RS-232 or RS-422 connections	GT104□-Q□BD
	RS-232 connection		GT1030-L□D2/L□DW, GT1020-L□D2/L□DW
	GT1030 GT1020	RS-422 connection	

Available unit for computer link connection

Unit	RS-422	RS-232
Host link unit/ Communication unit/ Communication board	C200H-LK202-V1 C500-LK201-V1 CQM1-SCB41 CJ1W-CIF11 CJ1W-SCU41 CJ1W-SCU41-V1 CJ1W-SCU21-V1+CP1W-EXT01 CS1W-SCB41 CS1W-SCB41-V1 C200HW-COM03 C200HW-COM06 CP1W-CIF11 CP1W-CIF12	C200H-LK201-V1 C500-LK201-V1 CS1W-SCU21 CS1W-SCU21-V1 CS1W-SCB21 CS1W-SCB21-V1 CS1W-SCB41 CS1W-SCB41-V1 CJ1W-SCU21 CJ1W-SCU21-V1 CJ1W-SCU41 CJ1W-SCU41-V1 C200HW-COM02 C200HW-COM05 C200HW-COM06 CQM1-CIF01 CQM1-CIF02 CQM1-SCB41 CPM1-CIF01 CPM2C-CN111 CPM2C-CIF01-V1 CP1W-CIF01



Precautions

Precautions on system

- When connecting a GOT to the OMRON programmable controller, set a terminating resistor for the programmable controller.
The GOT has a built-in terminating resistor.
- Small-sized programmable controller that cannot be connected
CQM1-CPU11 does not have the RS-232C interface and cannot connect to a GOT.
- Connecting to C200HE
Connect a GOT to the C200HE via a rack type host link unit or a communication board.
- For C200HE-CPU11, a communication board cannot be installed.
Use a host link unit.
- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used. Connect the cable to the system devices, including Ethernet modules, hubs, and transceivers, according to the Ethernet network system to be used.
- When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use the switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)
- Communication via network system
A GOT cannot access a programmable controller on other networks via a programmable controller (the network module, Ethernet module, and others) on the network where the GOT is connected.
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.

Precautions on setup

- Polar difference between GOT and OMRON product
For signal names, poles A and B are reversed between a GOT and an OMRON product.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for OMRON programmable controller connection
- Chapter 3 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
-
- For connection method with Handy GOT
- Chapter 31 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
- Chapter 23 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
-
- For connection method with GT SoftGOT1000
 - For controllers that can be monitored by GT SoftGOT1000 and accessible range
- Chapter 2 in GT SoftGOT1000 Version3 Operating Manual for GT Works3 (SH-080860ENG)
-
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.3 KEYENCE programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Computer link connection		Direct CPU connection	
	RS-422/485	RS-232	RS-422/485	RS-232
KV-700	○	○	×	○
KV-1000	○	○	×	○
KV-3000	○	○	×	○
KV-5000	○	○	×	×

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
GT10	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT105□	RS-232 or RS-422 connections	GT105□-Q□BD
	GT104□	GT104□-Q□BD
GT1030 GT1020	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	RS-422 connection	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW and GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Available unit for computer link connection

Unit	RS-422	RS-232
Multi-communication unit	KV-L20R KV-L20 KV-L20V	KV-L20R KV-L20 KV-L20V



Precautions

■ Precautions on system

- When connecting a GOT to the KEYENCE programmable controller, set terminating resistors for the programmable controller and a GOT.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for KEYENCE programmable controller connection
-
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 5 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
-  Chapter 33 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
-  Chapter 24 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.4 KOYO EI programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
KOSTAC SU series	SU-5E	○	○	○	○
	SU-6B	○	○	○	○
	SU-5M	○	○	○	○
	SU-6M	○	○	○	○
DirectLOGIC 05 series	D0-05AA	○	○	×	○
	D0-05AD	○	○	×	○
	D0-05AR	○	○	×	○
	D0-05DA	○	○	×	○
	D0-05DD	○	○	×	○
	D0-05DD-D	○	○	×	○
	D0-05DR	○	○	×	○
DirectLOGIC 06 series	D0-05DR-D	○	○	×	○
	D0-06DD1	○	○	○	○
	D0-06DD2	○	○	○	○
	D0-06DR	○	○	○	○
	D0-06DA	○	○	○	○
	D0-06AR	○	○	○	○
	D0-06AA	○	○	○	○
DirectLOGIC 205 series	D0-06DD1-D	○	○	○	○
	D0-06DD2-D	○	○	○	○
	D0-06DR-D	○	○	○	○
	D2-240	○	○	×	○
PZ series	D2-250-1	○	○	○	○
	D2-260	○	○	○	○
PZ series	PZ3	×	×	○	○

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
Data Communications module	U-01DM	U-01DM
	D2-DCM	D2-DCM
	D0-DCM	D0-DCM



Precautions

Precautions on system

- When connecting a GOT to the KOYO EI programmable controller, set a terminating resistor for the programmable controller.
The GOT has a built-in terminating resistor.
- Clock setting of GOT
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.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for KOYO EI programmable controller connection
-
- For connection method with Handy GOT
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 6 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
- Chapter 34 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
- Chapter 25 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.5 SHARP programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Computer link connection		Direct CPU connection	
	RS-422	RS-232	RS-422	RS-232
JW-21CU	○	×	×	×
JW-31CUH				
JW-50CUH				
JW-22CU				
JW-32CUH				
JW-33CUH				
JW-70CUH	○	×	○ *1	
JW-100CUH				
JW-100CU				
Z-512J	×	×	○ *1	

*1 Either RS-422 or RS-232 interface can be selected.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□-HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
Link unit	JW-21CM JW-10CM ZW-10CM	-



Precautions

Precautions on system

- For connecting to a GOT, use a link unit applicable to the JW-31CUH, JW-32CUH, and JW-33CUH.
- When connecting a GOT to the SHARP programmable controller, set a terminating resistor for the programmable controller.
The GOT has a built-in terminating resistor.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for SHARP programmable controller connection
-
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 8 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
-  Chapter 36 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
-  Chapter 26 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.6 JTEKT programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
TOYOPUC series	PC3JG	○	○ *1	×	○ *1
	PC3JG-CPU				
	PC3J	○	○ *1	○	○ *1
	PC3J-CPU				
	PC2J	○	○ *1	×	○ *1
	PC2J16P-CPU				
	PC2J16PR-CPU				
	PC2J-CPU				
	PC2JS-CPU				
	PC2JR-CPU				

*1 The RS-232/RS-422 converter (TXU-2051) is required.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
Link unit	PC/CMP-LINK 2PORT-LINK PC/CMP2-LINK	-



Precautions

■ Precautions on system

- When the programmable controller is a terminating station, do not connect a terminating resistor.
Set the GOT terminating resistor setting to off.
- System configuration
Communication may not be correctly executed in a system that has the programmable controllers applicable to the PC3J extended function and those inapplicable to the function.
The system must have programmable controllers applicable to the PC3J extended function only or those inapplicable to the function only.
- Clock setting of GOT
The GOT clock setting is enabled only for the programmable controller corresponding to the station No. set for the host address.

■ Other precautions

- Setting station No. of programmable controller
Make sure that the programmable controller corresponding to the station No. set for the host address exists in the system configuration.
- System alarm
The system alarm can be displayed only for the programmable controller set as the host address.
When connecting a GOT to the programmable controller compatible with the PC3J extended function, only the system alarm of the program No.1 can be displayed.
- Version of PC3J
For PC3J, use the version 2.1 or later.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for JTEKT programmable controller connection
- Chapter 7 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
-
- For connection method with Handy GOT
- Chapter 35 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
► Chapter 29 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.7 TOSHIBA programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
PROSEC T series	T2(PU224)	X	X	○	X
	T2E			○ *1	
	T2N			○ *1	
	T3			○	X
	T3H			○	X
V series	model 3000(S3)	X	X	○	X
	model 2000(S2)				
	model 2000(S2E)				
	model 2000(S2T)				

*1 Either RS-422 or RS-232 interface can be selected.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD



Precautions

■ Precautions on system

- When connecting a GOT to the TOSHIBA programmable controller, set a terminating resistor for the programmable controller.
The GOT has a built-in terminating resistor.



Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of TOSHIBA programmable controller connection

Chapter 11 in GOT1000 Series Connection Manual
(Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)

- For connection method with Handy GOT

Chapter 39 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
Chapter 27 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)

* For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.8 TOSHIBA MACHINE programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
TCmini series	TC3-01	×	×	×	○
	TC3-02	×	×	×	○
	TC5-20	×	×	×	○
	TC6-00	×	×	×	○
	TC8-00	×	×	×	○

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□Q□BD
	Bus connection	GT115□Q□BDQ, GT115□Q□BDA
GT10	Handy GOT RS-232 or RS-422 connections	GT115□HS-Q□BD
	GT105□ RS-232 or RS-422 connections	GT105□Q□BD
	GT104□ RS-232 or RS-422 connections	GT104□Q□BD
	GT1030 GT1020 RS-232 connection	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW
	RS-422 connection	GT1030-L□D/L□DW, GT1030-L□L/L□LW GT1020-L□L/L□LW (For GT1030-L□D/L□DW and GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of TOSHIBA MACHINE programmable controller connection
- For connection method with Handy GOT
- For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



Chapter 12 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)



Chapter 40 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)



Chapter 28 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.9 HITACHI IES programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
Large-sized H series	H-302(CPU2-03H)	○ *1	○ *1	x	○
	H-702(CPU2-07H)				
	H-1002(CPU2-10H)				
	H-2002(CPU2-20H)				
	H-4010(CPU3-40H)				
	H-300(CPU-03Ha)				
	H-700(CPU-07Ha)				
H-200 to 252 series	H-200(CPU-02H, CPE-02H)	x	x	x	○
	H-250(CPU21-02H)				
	H-252(CPU22-02H)				
	H-252B(CPU22-02HB)				
	H-252C(CPU22-02HC)				
	H-252C(CPE22-02HC)				
	H-20DR				
H series board type	H-28DR	x	x	x	○
	H-40DR				
	H-64DR				
	H-20DT				
	H-28DT				
	H-40DT				
	H-64DT				
	HL-40DR				
	HL-64DR				
	EH-CPU104				
EH-150 series	EH-CPU208	x	x	x	○
	EH-CPU308				
	EH-CPU316				

*1 Either RS-422 or RS-232 interface can be selected.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□-HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
Intelligent serial port module	COMM-H COMM-2H	COMM-H COMM-2H



Precautions

Precautions on system

- When connecting a GOT to the intelligent serial port module, connect a terminating resistor to the intelligent serial port module.
The GOT has a built-in terminating resistor.



Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking for HITACHI IES programmable controller connection



Chapter 2 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)

- For connection method with Handy GOT



Chapter 43 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 30 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

* For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.10 HITACHI programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
S10V	LQP510	○	○	○	
	LQP520				
S10mini	LQP800	○	○	x	x
	LQP000				
	LQP010				
	LQP011				
	LQP120				

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
Communication module	LQE565 LQE165	LQE560 LQE060 LQE160

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of HITACHI programmable controller connection
- Chapter 3 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
-
- For connection method with Handy GOT
- Chapter 44 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
➤ Chapter 31 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

* For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.11 FUJI FA programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
MICREX-F	F55	○	○	×	×
	F70				
	F120S				
	F140S				
	F15□S				

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
RS-232C interface card	-	NV1L-RS2
RS-232C/485 interface capsule	FFK120A-C10	FFK120A-C10
General-purpose interface module	NC1L-RS4 FFU120B	NC1L-RS2 FFU120B

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of FUJI FA programmable controller connection
- Chapter 4 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
- For connection method with Handy GOT
- Chapter 45 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
➤ Chapter 32 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.12 PANASONIC EW programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Computer link connection		Direct CPU connection	
	RS-422	RS-232	RS-422	RS-232
FP0-C16CT				
FP0-C32CT				
FP0R	×	×	×	○
FP1-C24C				
FP1-C40C				
FP2				
FP2SH				
FP3				
FP5	×	○	×	○
FP10(S)				
FP10SH				
FP-M(C20TC)				
FP-M(C32TC)	×	×		
FP-Σ			×	○
FP-X	○	○		

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□HS-Q□BD
GT105□	RS-232 or RS-422 connections	GT105□-Q□BD
GT104□	RS-232 or RS-422 connections	GT104□-Q□BD
GT10	RS-232 connection	GT1030-L□D/L□DW, GT1020-L□D/L□DW2
GT1030	RS-422 connection	GT1030-L□D/L□DW, GT1030-L□L/L□DW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW and GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)
GT1020		

Available unit for computer link connection

Unit	RS-422	RS-232
Computer communication unit	AFPX-COM3	AFP2462 AFP3462 AFP5462 AFPX-COM1 AFPX-COM2 AFPX-COM4



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of PANASONIC EW programmable controller connection
-
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 14 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
-  Chapter 42 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
-  Chapter 33 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.13 YASKAWA programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	GT16/GT15/GT11/GT10 ^{*1}				GT SoftGOT1000				Ethernet	
	Computer link connection		Direct CPU connection		Ethernet ^{*2}	Computer link connection		Direct CPU connection		
	RS-422	RS-232	RS-422	RS-232		RS-422	RS-232	RS-422	RS-232	
GL120										
GL130	○	×			○					
GL60S		○			×					
GL60H										
GL70H										
CP-9200SH		○			○					
CP-9300MS	×	×			×					
MP920	○	○			○					
MP930					○					
MP940			○		○					
PROGIC-8	×	×			×					
CP-9200(H)										
CP-312										
MP2200	○	○			○					
MP2300	○	○			○					

*1 GT10 is compatible with the followings.

CP-9200SH, MP920, MP930, MP940, MP2200, and MP2300

*2 Available only for GT16 and GT15.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD, GT115□-Q□BDA
	Bus connection	GT115□-HS-Q□BD
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	RS-232 or RS-422 connections	GT105□-Q□BD
	RS-232 or RS-422 connections	GT104□-Q□BD
GT1030 GT1020	RS-232 connection	GT1030-L□D/L□DW, GT1020-L□D/L□DW
		GT1030-L□D/L□DW, GT1030-L□L/L□DW, GT1020-L□D/L□DW,
	RS-422 connection	GT1020-L□L/L□DW (For GT1030-L□L/L□DW and GT1020-L□L/L□DW, MELSEC-FXCPU connection is available only.)

Available unit for computer link connection

Unit	GT16/GT15/GT11/GT10		GT SoftGOT1000	
	RS-422	RS-232	RS-422	RS-232
MEMOBUS Module/ Communications Module	JAMSC- 120NOM27100 JAMSC-IF612 217IF 217IF-01	JAMSC-IF60 JAMSC-IF61 CP-217IF 217IF 217IF-01 218IF-01	-	JAMSC-IF60 JAMSC-IF61 CP-217IF 217IF 217IF-01 218IF-01

Available unit for Ethernet connection

Unit	Model
Communications Module	218IF, 218IF-01



Precautions

Precautions on system

- When connecting a GOT to the YASKAWA programmable controller, connect a terminating resistor to the programmable controller as necessary.
The GOT has a built-in terminating resistor.
- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used.
Connect the cable to appropriate devices such as Ethernet modules, hubs, and transceivers, depending on the Ethernet network system to be used.
- When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)
- Communication via network system
A GOT cannot access a programmable controller on the other networks via a programmable controller (the network module, Ethernet module, and others) on the network where the GOT is connected.
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of YASKAWA programmable controller connection
 - For connection method with Handy GOT
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 6 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
- Chapter 47 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
- Chapter 34 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.14 YOKOGAWA programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15/GT11						GT SoftGOT1000					
		Computer link connection		Direct CPU connection		Ethernet *2	Computer link connection		Direct CPU connection		Ethernet		
		RS-422	RS-232	RS-422	RS-232		RS-422	RS-232	RS-422	RS-232			
FA500	FA500	○ *1		x	x	x					x		
FA-M3	F3SP05	○				○	○				○		
	F3SP08	x				x	x				x		
	F3SP10												
	F3SP20										x		
	F3SP30												
	F3FP36												
	F3SP21												
	F3SP25												
	F3SP35												
	F3SP28												
STARDOM	F3SP38												
	F3SP53												
STARDOM	F3SP58												
	F3SP59												
STARDOM	F3SP66	x		x									
	F3SP67										x		
STARDOM	NFCP100	x	x	x	○	x							
STARDOM	NFJT100												

*1 Either RS-422 or RS-232 interface can be selected.

*2 Available only for GT16 and GT15.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
PC link module	LC02-0N F3LC11-2N	LC01-0N LC02-0N F3LC01-1N F3LC11-1N F3LC11-1F F3LC12-1F

Available unit for Ethernet connection

Unit	Model
Ethernet Interface Module	F3LE01-5T, F3LE11-0T, F3LE12-0T



Precautions

Precautions on system

- Precautions for connecting to FA-M3
 - For connecting the GOT to the programming tool interface connector with the CPU port/D-sub 9-pin conversion cable, the GOT cannot connect to the F3SP10, F3SP20, F3SP30, and F3SP36.
 - The F3SP10 is not applicable to the PC link module (F3LC11-2N). A GOT cannot connect to the F3P10 via the RS-422 interface.
- Precautions for connecting to STARDOM
 - Dual-redundant configuration
When the dual-redundant configuration is used with STARDOM, the GOT cannot connect to STARDOM.
 - System alarm
Programmable controller errors in the system alarm are not displayed.
 - Clock setting of GOT
STARDOM does not have the clock data write/read function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).
- When connecting a GOT to the PC link module, connect a terminating resistor for the PC link module.
The GOT has a built-in terminating resistor.
- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used.
Connect the cable to appropriate devices such as Ethernet modules, hubs, and transceivers, depending on the Ethernet network system to be used.
- When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)
- Communication via network system
A GOT cannot access a programmable controller on the other networks via a programmable controller (the network module, Ethernet module, and others) on the network where the GOT is connected.
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.

Precautions on setup

- Set the switch of the PC link module before installing the PC link module on a base unit.
- Polar difference between GOT and YOKOGAWA product
For signal names, poles A and B are reversed between a GOT and a YOKOGAWA product.
- When connecting a GOT to YOKOGAWA programmable controller, devices to be set for objects must be in the device range of YOKOGAWA programmable controller.
When a device outside the device range is set for an object, an invalid value is displayed for the object.
(The error is not displayed in the system alarm.)



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of YOKOGAWA programmable controller connection
-
- For connection method with Handy GOT
 - For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



Chapter 7 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)



Chapter 48 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 35 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

1

GOT

2

SOFTWARE

3

FUNCTION

4

CONNECTION
CONFIGURATION

5

COMPLIANCE
WITH OVERSEAS
STANDARDS

6

EQUIPMENT,
SOFTWARE,
AND MANUALS

7

GLOSSARY

4.3.15 ALLEN-BRADLEY programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15/GT11				GT10			
		Computer link connection		Direct CPU connection		Ether-net ^{*4}	Computer link connection		Ether-net ^{*4}
		RS-422	RS-232	RS-422	RS-232		RS-422	RS-232	
SLC500 series [*]	SLC500-20	x	x	x	○	x	x	x	x
	SLC500-30								x
	SLC500-40								
	SLC5/01								
	SLC5/02								○
	SLC5/03								
	SLC5/04								
	SLC5/05								
MicroLogix1000 series (digital CPU) ¹⁾	1761-L10BWA	x	x	x	○	x	x	x	○
	1761-L10BWB								
	1761-L16WA								
	1761-L16BWA								
	1761-L16BW								
	1761-L16BBB								
	1761-L32AWA								
	1761-L32BWA								
	1761-L32BW								
	1761-L32BBB								
MicroLogix1000 series (analog CPU) ¹⁾²⁾³⁾	1761-L32AAA								
	1761-L20AWA-5A								
	1761-L20BWA-5A								
	1761-L20BWB-5A								
MicroLogix1200 series ¹⁾	1762-L24BWA	x	x	x	○	x	x	x	○
MicroLogix1500 series ¹⁾	1764-LSP								
ControlLogix series	1756-L								
	1756-L1M1								
	1756-L1M2								
	1756-L1M3								
	1756-L61								
	1756-L62								
	1756-L63								
	1756-L55M12								
	1756-L55M13								
	1756-L55M14								
	1756-L55M16								
	1756-L55M22								
	1756-L55M23								
	1756-L55M24								

Series	Model	GT15/GT11				GT10					
		Computer link connection		Direct CPU connection		Ether-net ^{*4}	Computer link connection		Direct CPU connection		Ether-net ^{*4}
		RS-422	RS-232	RS-422	RS-232		RS-422	RS-232	RS-422	RS-232	
CompactLogix series	1769-L31	x	x	x	○	×	x	x	x	x	
	1769-L32E					○					
	1769-L32C					x					
	1769-L35E					○					
	1769-L35CR					x					
FlexLogix series	1794-L33	x	x	x	○	x	x	x	x	x	
	1794-L34					x					

*1 Connectable to the DH485 network via Adapter (1770-KF3).

*2 The CPU of series C or later is applicable for connecting to the DH485 network. (The DH485 protocol is not supported for series B or earlier.)

*3 The CPU of series D or later is applicable to the one-on-one connection. (The DF1 half duplex is not supported for series C or earlier.)

*4 Available only for GT16 and GT15. EtherNet/IP (PCCC protocol) is supported.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
GT11	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□-HS-Q□BD
GT10	GT105□	RS-232 or RS-422 connections
	GT104□	RS-232 or RS-422 connections
	GT1030 GT1020	RS-232 connection
		GT1030-L□D2/L□DW, GT1020-L□D2/L□DW2 GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW and GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Available unit for Ethernet connection

Unit	Model
EtherNet/IP communication module	1756-ENET, 1756-ENBT



Precautions

Precautions on system

- The target device of an Ethernet cable differs depending on the Ethernet network system configuration to be used. Connect the cable to appropriate devices such as Ethernet modules, hubs, and transceivers, depending on the Ethernet network system to be used.
- When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)
- Communication via network system
A GOT cannot access a programmable controller on the other networks via a programmable controller (the network module, Ethernet module, and others) on the network where the GOT is connected.
- In case of connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for ALLEN-BRADLEY programmable controller connection
- Chapter 11 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
-
- For connection method with Handy GOT
- Chapter 52 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 36 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.16 GE FANUC programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection	
		RS-422	RS-232	RS-422	RS-232
Series 90 - 30	IC693CPU311	○	○	×	×
	IC693CPU313	○	○	×	×
	IC693CPU323	○	○	×	×
	IC693CPU350	○	○	○	○
	IC693CPU360	○	○	○	○
	IC693CPU363	○	○	○	○
	IC693CPU366	○	○	○	○
	IC693CPU367	○	○	○	○
	IC693CPU374	○	○	○	○
Series 90 - 70	IC697CPU731	○	○	×	×
	IC697CPX772	○	○	×	×
	IC697CPX782	○	○	×	×
	IC697CPX928	○	○	×	×
	IC697CPX935	○	○	×	×
	IC697CPU780	○	○	×	×
	IC697CGR772	○	○	×	×
	IC697CGR935	○	○	×	×
	IC697CPU788	○	○	×	×
	IC697CPU789	○	○	×	×
	IC697CPM790	○	○	×	×
VersaMax Micro	IC200UAA003	○	○	○	○
	IC200UAR014	×	×	×	○
	IC200UDD104	×	×	×	○
	IC200UDD112	×	×	×	○
	IC200UDR001	×	×	×	○
	IC200UDR002	×	×	×	○
	IC200UDR003	×	×	×	○
	IC200UAL004	×	×	○	○
	IC200UAL005	×	×	○	○
	IC200UAL006	×	×	○	○
	IC200UAA007	×	×	○	○
	IC200UAR028	×	×	○	○
	IC200UDD110	×	×	○	○
	IC200UDD120	×	×	○	○
	IC200UDD212	×	×	○	○
	IC200UDR005	×	×	○	○
	IC200UDR006	×	×	○	○
	IC200UDR010	×	×	○	○
	IC200UDD064	○	○	○	○
	IC200UDD164	○	○	○	○
	IC200UDR164	○	○	○	○
	IC200UDR064	○	○	○	○

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□HS-Q□BD

Available unit for computer link connection

Unit	RS-422	RS-232
Communication Modules	IC693CMM311 IC697CMM711	IC693CMM311 IC697CMM711



Precautions

Precautions on system

- When connecting a GOT to the GE FANUC programmable controller, set a terminating resistor for the programmable controller.
The GOT has a built-in terminating resistor.
- Clock setting of GOT
The PLC clock data cannot be written to or read from the GOT.
The settings of "time adjusting" or "time broadcast" made on the GOT will be disabled on the PLC.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for GE FANUC programmable controller connection
- Chapter 12 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
- For connection method with Handy GOT
 - For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 53 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
- Chapter 37 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.17 LS INDUSTRIAL SYSTEMS programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Model	Computer link connection		Direct CPU connection		Ethernet
		RS-422	RS-232	RS-422	RS-232	
K300S	K4P-15AS	○	○	×	×	×
K200S	K3P-07□S	○	○	×	×	×
K120S	K7M-D□□□U	○	○	×	○	×
K80S	K7M-D□□□S/(DC)	○	○	×	○	×

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD, GT115□-Q□BDA
GT10	Bus connection	GT115□-Q-L□BD, GT115□-Q-L□BDA
	Handy GOT	GT115□-HS-Q□BD
	GT105□	GT105□-Q□BD
	GT104□	GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW, GT1020-L□D2/L□DW2
GT1030 GT1020	RS-422 connection	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW and GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Available unit for computer link connection

Unit	RS-422	RS-232
Cnet I/F modules	G7L-CUEC G6L-CUEC G4L-CUEA	G7L-CUEB G6L-CUEB G4L-CUEA



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for LS INDUSTRIAL SYSTEMS programmable controller programmable controller connection
-
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 13 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
-  Chapter 54 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
-  Chapter 38 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.3.18 SICK safety controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Computer link connection		Direct CPU connection	
	RS-422	RS-232	RS-422	RS-232
FX3-CPU000000	x	x	x	○
FX3-CPU130002	x	x	x	○

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	GT105□ RS-232 or RS-422 connections	GT105□-Q□BD
	GT104□ RS-232 or RS-422 connections	GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	GT1030 GT1020	GT1030-L□D/L□DW, GT1030-L□L/L□LW, GT1020-L□D/L□DW, GT1020-L□L/L□LW (For GT1030-L□L/L□LW and GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)
	RS-422 connection	

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for SICK safety controller connection
- Chapter 14 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
-
- For connection method with Handy GOT
- Chapter 55 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 52 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
-
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.3.19 SIEMENS programmable controller

For details of the system configuration, refer to "Connection type" in section 4.3.1.

Connectable GOT



Connectable models

Series	Computer link connection		Direct CPU connection	
	RS-422	RS-232	RS-422	RS-232
SIMATIC S7-200 series				
SIMATIC S7-300 series	×	×	×	○
SIMATIC S7-400 series				

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
GT10	Handy GOT RS-232 or RS-422 connections	GT115□-HS-Q□BD
	GT105□ RS-232 or RS-422 connections	GT105□-Q□BD
	GT104□ RS-232 or RS-422 connections	GT104□-Q□BD
	GT1030 GT1020 RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
		GT1030-L□D/L□DW, GT1030-L□L/L□DW, GT1020-L□D/L□DW, GT1020-L□L/L□DW (For GT1030-L□L/L□DW and GT1020-L□L/L□DW, MELSEC-FXCPU connection is available only.)



Precautions

■ Other precautions

● Alarm list display function (system alarm) for GOT

When a GOT is connected to the SIEMENS programmable controller, programmable controller errors cannot be displayed with the alarm list display function (system alarm). (Check the errors with monitoring the SIEMENS programmable controller with the GOT.)

● At system start-up

(1) At power-on

Power on all the programmable controller CPU before powering on a GOT. When powering on the programmable controller CPU after powering on a GOT, reboot the GOT.

(2) At power-off of other station programmable controller CPU

When any of the other programmable controller CPUs (that are not connected to HMI Adapter) is powered off, a GOT stops monitoring.

When rebooting the GOT, the GOT can start monitoring. (Even though the programmable controller is powered on again, the GOT does not restart monitoring.)



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking for SIEMENS programmable controller connection
- Chapter 15 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
- For connection method with Handy GOT
- Chapter 56 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 39 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

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GLOSSARY

COMPLIANCE WITH OVERSEAS STANDARDS

EQUIPMENT, SOFTWARE, AND MANUALS

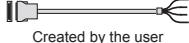
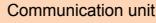
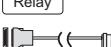
4.4 Other third party devices

4.4.1 Connection type

The following shows connection with a third party device. The available connection type and GOT differ according to the manufacturer. For details, refer to the section for each programmable controller.

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT
• Third party device	 RS-232 Recommended Product ^{**1} or Created by the user	Not required Built in GOT	 GT16/GT15
	 RS-232 Created by the user	Not required Built in GOT	 GT11
		Not required Built in GOT	 GT105/GT104
	 Communication unit	Not required Built in GOT	 GT1030/GT1020
	 RS-232 Connector conversion box External connection GT16H-C□-42P 30:3m Recommended Product ^{**1} or Created by the user	Not required Built in GOT	 GT16 Handy
	 Relay Created by the user External connection		
	 RS-232 Connector conversion box External connection GT11H-C□-37P 30:3m Recommended Product ^{**1} or Created by the user GT11H-CNB-37S	Not required Built in GOT	 GT11 Handy
	 External connection GT11H-C□ 30:3m 60:6m		

^{**1}: Cables vary depending on the target devices.

For details, refer to 6.EQUIPMENT, SOFTWARE, AND MANUALS and the following.

- GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3
- GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

2) RS-485

Target device	Cable	Communication unit	GOT
• Third party device	<p>RS-485 Created by the user</p> <p>RS-422 conversion GT16-C□R4-9S 02:0.2m</p> <p>RS-485 Created by the user</p> <p>RS-485 terminal block conversion unit FA-LTBGTR4CBL□ 05:0.5m 10:1m 20:2m</p> <p>RS-485 Recommended Product^{*2} or Created by the user</p>	<p>Not required Built in GOT</p>	GT16
	<p>RS-485 Recommended Product^{*2} or Created by the user</p>	<p>^{*3} RS-422/485 GT15-RS4-9S</p> <p>^{*3} RS-422/485 GT15-RS4-TE</p> <p>Not required Built in GOT</p>	GT16/GT15
	<p>RS-485 Created by the user GT16H-CNB-42S</p> <p>Connector conversion box External connection GT16H-C□-42P 30:3m 60:6m 100:10m</p> <p>Relay Created by the user</p> <p>External connection</p> <p>RS-485 Created by the user GT11H-CNB-37S</p> <p>Connector conversion box GT11H-C□-37P 30:3m 60:6m 100:10m</p>	<p>Not required Built in GOT</p>	GT16 Handy
	<p>External connection GT11H-C□ 30:3m 60:6m</p>	<p>Not required Built in GOT</p>	GT11 Handy

^{*2}: Cables vary depending on the target devices.

For details, refer to 6.EQUIPMENT, SOFTWARE, AND MANUALS and the following.
 • GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3
 • GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

^{*3}: The available communication unit differs depending on the third party device connected.
 For available communication units, refer to the following.
 • GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3
 • GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

4.4.2 Panasonic servo amplifier

For details of the system configuration, refer to "Connection type" in section 4.4.1.

Connectable GOT



Connectable models

Series	RS-485	RS-232
MINAS A4	○	○
MINAS A4F	○	○
MINAS A4L	○	○

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□HS-Q□BD



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of Panasonic servo amplifier connection
- Chapter 13 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
-
- For connection method with Handy GOT
- Chapter 41 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
➤ Chapter 51 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.4.3 IAI robot controller

For details of the system configuration, refer to "Connection type" in section 4.4.1.

Connectable GOT



Connectable models

Series	Model	RS-232
X-SEL	XSEL-J	○
	XSEL-K	○
	XSEL-KE	○
	XSEL-KT	○
	XSEL-KET	○
	XSEL-P	○
	XSEL-Q	○
	XSEL-JX	○
	XSEL-KX	○
	XSEL-KTX	○
	XSEL-PX	○
	XSEL-QX	○
	SSEL	○ *1

*1 The connector conversion cable (CB-SEL-SJ002) is required.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections Bus connection	GT115□-Q□BD GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□-HS-Q□BD
GT10	GT105□ GT104□ RS-232 or RS-422 connections	GT105□-Q□BD GT104□-Q□BD
	RS-232 connection	GT1030-L□D2/L□DW2, GT1020-L□D2/L□DW2
	GT1030 GT1020	GT1030-L□D/L□DW, GT1030-L□L/L□DW, GT1020-L□D/L□DW, GT1020-L□L/L□DW (For GT1030-L□L/L□DW, GT1020-L□L/L□DW, MELSEC-FXCPU connection is available only.)



Related Manuals

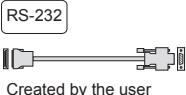
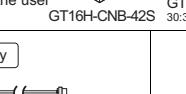
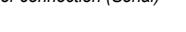
- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of IAI robot controller connection
- Chapter 2 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)
-
- For connection method with Handy GOT
- Chapter 30 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
- Chapter 51 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
-
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.5 Microcomputer connection

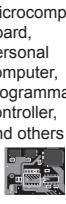
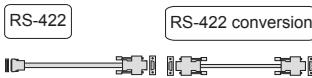
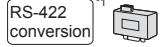
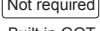
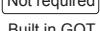
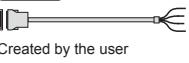
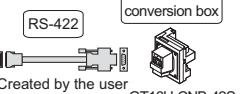
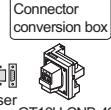
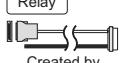
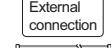
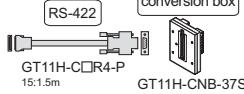
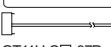
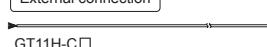
4.5.1 Microcomputer connection (Serial)

System configuration

1) When connecting to one GOT (RS-232)

Target device	Cable	Communication unit	GOT
• Microcomputer board, personal computer, programmable controller, and others		Not required Built in GOT	
		RS-232 GT15-RS2-9P	
		Not required Built in GOT	
		Not required Built in GOT	
		Not required Built in GOT	
		Not required Built in GOT	
		Not required Built in GOT	
		Not required Built in GOT	

2) When connecting to one GOT (RS-422)

Target device	Cable	Communication unit	GOT
  	 Created by the user GT16-C□R4-9S 20: 0.2m	 Built in GOT	 GT16
	 Created by the user		
	 Created by the user	 GT15-RS2T4-9P	 GT16/GT15
		 GT15-RS4-9S	
		 Built in GOT	 GT11
		 Built in GOT	 GT105□/GT104□
	 Created by the user	 Built in GOT	 GT1030/GT1020
	 Created by the user	 GT16H-CNB-42S	 GT16 Handy
	 Created by the user	 GT16H-C□-42P 30:3m 60:6m 100:10m	
	 GT11H-C□R4-P 15:1.5m	 GT11H-C□-37P 30:3m 60:6m 100:10m	 GT11 Handy
		 GT11H-CNB-37S	
	 GT11H-C□ 30:3m 60:6m		

*1: Use GT15-RS4-9S for using GT15□.

3) When connecting to multiple GOTs

Target device ^{*2}	GOT (n-th) ^{*3}	Cable	GOT (n+1th) ^{*3}
• Microcomputer board, personal computer, programmable controller, and others   	RS-232 GT1030/GT1020	RS-232 GT10-C□R2-6P 30:3m	□ GT1030/GT1020 ^{*4}
		RS-232 GT01-C30R2-6P(3m)	□ GT105□/GT104□
	RS-232 GT105□/GT104□	RS-422 Created by the user	□ GT1030/GT1020 ^{*5}
		RS-422 Created by the user	□ GT105□/GT104□
	RS-422 GT105□/GT104□	RS-422 Created by the user	□ GT1030/GT1020 ^{*4}
		RS-422 Created by the user	□ GT105□/GT104□

*2: For the system configuration between GOT and the host, refer to the following.

- ☞ 1) When connecting to one GOT (RS-232)
- 2) When connecting to one GOT (RS-422)

*3: This is the connection type (for n-th and n+1th from the host) of GOT, which is connected to the host.

*4: Only RS-232 interface (built into GOT) can be connected to the n+1th GOT.

*5: Only RS-422 interface (built into GOT) (24V) can be connected to the n+1th GOT.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	RS-232 or RS-422 connections	All the models (connected a communication unit to the GOT main unit)
	Bus connection	GT115□-Q□BD, GT115□-Q□BDA
GT10	Handy GOT	RS-232 or RS-422 connections
	GT105□	RS-232 or RS-422 connections
	GT104□	RS-232 or RS-422 connections
	GT1030 GT1020	RS-232 connection RS-422 connection



Precautions

■ Other precautions

- Virtual device in GOT
The virtual device in a GOT is used for the microcomputer connection. (Devices for a programmable controller are not used.)



Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of microcomputer connection
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



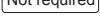
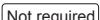
Chapter 2 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)



Chapter 58 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
Chapter 41 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)

4.5.2 Microcomputer connection (Ethernet)

System configuration

Target device	Cable	Communication unit	GOT
<ul style="list-style-type: none"> Microcomputer board, personal computer, programmable controller, and others 	 Ethernet  10BASE-T cable  100BASE-TX cable	 Not required Built in GOT	 *2
		 RS-232  GT15-RS2-9P	
	 Ethernet  10BASE-T cable  100BASE-TX cable	 Not required Built in GOT	 GT16 Handy
	 Ethernet  Connector conversion box  GT16H-CNB-42S  External connection  GT16H-C□-42P 30:3m		

*1: Use a cable that supports the Ethernet network system to be used.

*2: When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
Handy GOT	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)

Precautions

Other precautions

- Virtual device in GOT
The virtual device in a GOT is used for the microcomputer connection. (Devices for a programmable controller are not used.)

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of microcomputer connection



Chapter 3 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 (SH-080871ENG)

- For connection method with Handy GOT



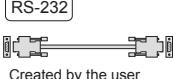
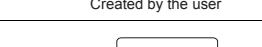
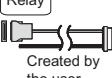
Chapter 59 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 41 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.6 MODBUS(R) connection

4.6.1 MODBUS(R)/RTU connection

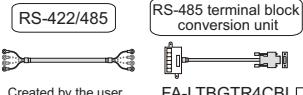
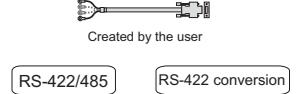
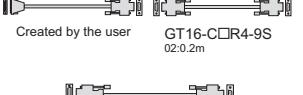
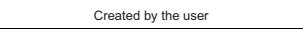
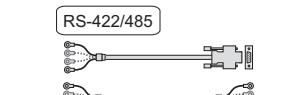
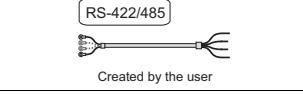
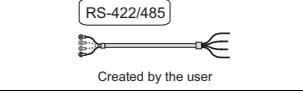
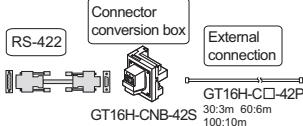
1) RS-232

Target device	Cable	Communication unit	GOT	
 *1	 Created by the user	Not required Built in GOT	GT16	Number of GOTs connected 1 Number of MODBUS devices connected 1 Grounding distance 15 m or less *2
		RS-232 GT15-RS2-9P	GT16/GT15	
		Not required Built in GOT	GT11	
		Not required Built in GOT	GT105□/GT104□	
	 Created by the user	Not required Built in GOT	GT1030/GT1020	
 *1	 Created by the user	Not required Built in GOT	GT16 Handy	Number of GOTs connected 1 Number of MODBUS devices connected 1 Grounding distance 6 m or less
		Connector conversion box GT16H-C□-42P 30:3m	GT16 Handy	
	 Created by the user	Not required Built in GOT	GT11 Handy	
		External connection GT11H-C□-37P 30:3m	GT11 Handy	
		Connector conversion box GT11H-CNB-37S	GT11 Handy	
	External connection GT11H-C□ 30:3m 60:6m	Not required Built in GOT	GT11 Handy	

*1: Only a MODBUS/RTU slave communication enabled device can be connected.

*2: The shortest specification on the MODBUS equipment side is prioritized when the specification on the MODBUS equipment side is 6m/15m or less.

2) RS-422

Target device	Cable	Communication unit	GOT
Programmable controller *3	 <p>Created by the user</p> <p>FA-LTBGTR4CBL□ 05:0.5m 10:1m 20:2m</p>  <p>Created by the user</p> <p>RS-422/485 RS-422 conversion</p>  <p>Created by the user</p> <p>GT16-C□R4-9S 02:0.2m</p>  <p>Created by the user</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16</p>
Temperature controller *3	 <p>Created by the user</p>	<p>RS-422/485 GT15-RS4-9S</p> <p>RS-422 conversion GT15-RS4-T4-9P</p> <p>RS-422/485 GT15-RS4-TE</p> <p>Not required</p> <p>Built in GOT</p> <p>RS-422/485 GT10-9PT5S</p> <p>Not required</p> <p>Built in GOT</p> <p>RS-422/485 GT10-9PT5S</p>	 <p>GT16/GT15</p>
	 <p>Created by the user</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT11</p>
		<p>Not required</p> <p>Built in GOT</p>	 <p>GT105□/GT104□</p>
	 <p>Created by the user</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT1030/GT1020</p>
	 <p>GT16H-CNB-42S 30:3m 60:6m 100:10m</p>	<p>Not required</p> <p>Built in GOT</p>	 <p>GT16 Handy</p>

*3: Only a MODBUS/RTU slave communication enabled device can be connected.

*4: The shortest specification of the maximum connection number on the MODBUS equipment side is prioritized when the specification on the MODBUS equipment side is 31 units or less.

*5: The shortest specification on the MODBUS equipment side is prioritized when the specification on the MODBUS equipment side is 13m/1,200m or less.

*6: GT11 supports only 2 pair wiring.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□-HS-Q□BD
GT10	GT105□	RS-232 or RS-422 connections
	GT104□	RS-232 or RS-422 connections
	GT1030	RS-232 connection
	GT1020	RS-422 connection

(For GT1030-L□L/L□LW, GT1020-L□L/L□LW, MELSEC-FXCPU connection is available only.)

Connectable GOT

GOT	Hardware version	Standard monitor OS
GT16□□, 15□□	Version A or later	-
GT1155-QTBD	Version C or later	-
GT1155-QSBD	Version F or later	-
GT1150-QLBD	Version F or later	-
GT1055-QSBD, CGT1050-QBBD	Version B or later	Standard monitor OS [01.12.**] or later
GT1045-QSBD, CGT1040-QBBD	Version A or later	
GT1030-LBD, CGT1030-LBDW	Version B or later	
GT1020-LBD, CGT1020-LBDW	Version D or later	

Precautions

Precautions on system

- Setting station No. of MODBUS equipment
Up to 31 MODBUS equipment can be connected for one GOT in the MODBUS network.
Set any station No. from 1 to 247 to each MODBUS equipment so that they do not overlap.
Make sure that the MODBUS equipment corresponding to the station No. set for the host address exists in the system configuration.
The station No. can be set regardless the cable connection order. There is no problem even if station Nos. are not consecutive.
- Clock setting of GOT
Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).
- 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.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of MODBUS® /RTU connection
- For connection method with Handy GOT
- For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

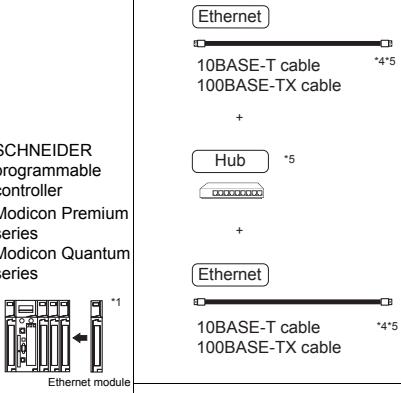
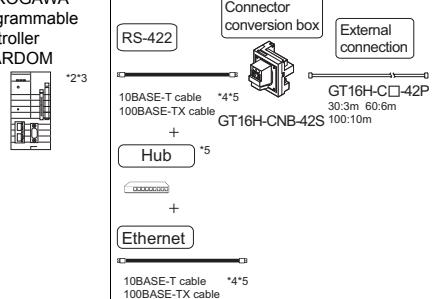
Chapter 4 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

Chapter 60 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)

Chapter 42 in GT11 Handy GOT User's Manual
(JY997D20101, JY997D20102)

4.6.2 MODBUS(R)/TCP connection

System configuration

Target device	Cable	Communication unit	GOT
• SCHNEIDER programmable controller Modicon Premium series Modicon Quantum series	 <p>Ethernet</p> <p>10BASE-T cable *4*5 100BASE-TX cable</p> <p>+</p> <p>Hub *5</p> <p>+</p> <p>Ethernet</p> <p>10BASE-T cable *4*5 100BASE-TX cable</p>	<p>Not required Built in GOT</p>	 <p>GT16</p>
		 <p>GT15-J71-E71-100</p>	 <p>GT15</p>
• YOKOGAWA programmable controller STARDOM	 <p>RS-422</p> <p>Connector conversion box</p> <p>External connection</p> <p>10BASE-T cable *4*5 100BASE-TX cable</p> <p>GT16H-C□-42P 30:3m 60:6m 100:10m</p> <p>Hub *5</p> <p>+</p> <p>Ethernet</p> <p>10BASE-T cable *4*5 100BASE-TX cable</p>	<p>Not required Built in GOT</p>	 <p>GT16 Handy</p>
			<p>Max. number of GOTs connected 64 or 126*7 (16 units or less are recommended.)</p> <p>Max. connection distance 100m</p>

*1: Connect the GOT to the Ethernet module via a hub.

*2: When connecting a GOT to a programmable controller, connect to the programmable controller Ethernet port via a hub.

*3: When connecting STARDOM to the YOKOGAWA programmable controller via MODBUS® /TCP connection, Modbus Communication Portfolio License is required. For details, refer to the YOKOGAWA programmable controller manual.

*4: For the twisted pair cable, use the straight cable.

*5: Use cables, connectors, and hubs that are compliant with the IEEE802.3 10BASE-T/100BASE-TX standard.

*6: When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.

•GT16 User's Manual (Hardware)

*7: Up to 126 GOTs can be connected to STARDOM of the YOKOGAWA programmable controller.

Connectable models

Manufacturer	Series	Model	GT16/GT15
			MODBUS [®] /TCP connection ^{*8}
Schneider Electric SA	Modicon Premium	TSX P57 203M	
		TSX P57 253M	
		TSX P57 303M	
		TSX P57 353M	
		TSX P57 453M	
	Modicon Quantum	140 CPU 311 10	
		140 CPU 434 12U	
		140 CPU 534 14U	
		140 CPU 651 50	
		140 CPU 651 60	
Yokogawa Electric Corporation	STARDOM	140 CPU 671 60	
		140 CPU 113 02	
		140 CPU 113 03	
		140 CPU 434 12A	
		140 CPU 534 14A	
Yokogawa Electric Corporation	STARDOM	NFCP100	
		NFJT100	

*8 Supporting only MODBUS[®] /TCP connection. Ethernet connection is not available.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)

Available unit for MODBUS[®] /TCP connection

Unit	Model
SCHNEIDER Ethernet module	TSX ETY 4102 TSX ETY 5102 140 NOE 771 00 140 NOE 771 10 140 NWM 100 00



Precautions

■ Precautions on system

- Precautions for connecting to STARDOM
 - Dual-redundant configuration
When the dual-redundant configuration is used with STARDOM, the GOT cannot connect to STARDOM.
 - System alarm
Programmable controller errors in the system alarm are not displayed.
 - Clock setting of GOT
STARDOM does not have the clock data write/read function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).
- When connecting multiple network devices (including a GOT) to the same segment
When multiple network devices (including a GOT) are connected to the same segment, the network load may increase, and the communication speed may slow down between the GOT and a programmable controller. The following actions can improve the communication performance.
 - Use a switching hub.
 - Use the high-speed 100BASE-TX (100Mbps).
 - Reduce the GOT monitoring points.
- When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)

■ Precautions on setup

- When connecting a GOT to YOKOGAWA programmable controller, devices to be set for objects must be in the device range of YOKOGAWA programmable controller.
When a device outside the device range is set for an object, an invalid value is displayed for the object.
(The system alarm is not displayed).



Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of MODBUS[®] /TCP connection
- For connection method with Handy GOT



Chapter 5 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)



Chapter 61 in GT16 Handy GOT User's Manual
(JY997D41201,JY997D41202)

*1 For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

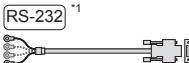
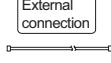
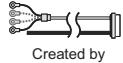
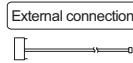
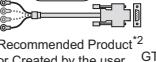
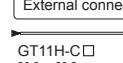
4.7 Third Party Temperature Controller

4.7.1 Connection type

The following shows connection with a temperature controller. The available connection type and GOT differ according to the manufacturer. For details, refer to the section for each temperature controller.

System configuration

1) RS-232

Target device	Cable	Communication unit	GOT
 	 Recommended Product ^{*2} or Created by the user	 Built in GOT	
		 GT15-RS2-9P	
	 Recommended Product ^{*2} or Created by the user	 Built in GOT	
		 GT16H-C□-42P 30:3m	
	 Created by the user	 GT11H-C□-37P 30:3m	
	 Recommended Product ^{*2} or Created by the user		
	 GT11H-CNB-37S		
	 GT11H-C□ 30:3m 60:6m		

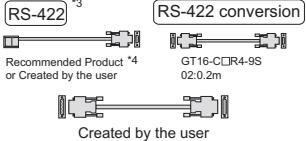
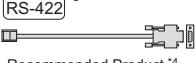
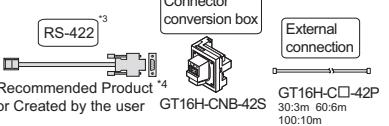
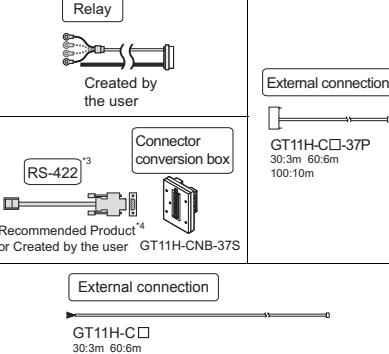
*1: The terminal differs depending on the manufacturer of the temperature controller to be connected.



*2: Cables vary depending on the target devices.

For details, refer to 6.EQUIPMENT, SOFTWARE, AND MANUALS and GOT1000 Series Connection Manual.

2) RS-422

Target device	Cable	Communication unit	GOT
Temperature controller 	 <p>RS-422^{*3} Recommended Product^{*4} or Created by the user GT16-CJ4R4-9S 0:2.0m</p> <p>RS-422 conversion Created by the user</p>	<p>Not required Built in GOT</p>	 GOT16
	 <p>RS-422^{*3} Recommended Product^{*4} or Created by the user</p>	<p>RS-422 conversion GT15-RS2T4-9P^{*4}</p>	 GOT16/GT15
		<p>RS-422/485 GT15-RS4-9S</p>	
		<p>Not required Built in GOT</p>	 GOT11
	 <p>RS-422^{*3} Recommended Product^{*4} or Created by the user GT16H-CB-42P 30:3m 60:6m 100:10m</p> <p>Connector conversion box External connection</p>	<p>Not required Built in GOT</p>	 GOT16 Handy
	 <p>Relay^{*3} Created by the user</p> <p>External connection GT11H-CB-37P 30:3m 60:6m 100:10m</p> <p>RS-422^{*3} Recommended Product^{*4} or Created by the user GT11H-CB-37S</p> <p>External connection GT11H-CB 30:3m 60:6m</p>	<p>Not required Built in GOT</p>	 GOT11 Handy

*3: The terminal differs depending on the manufacturer of the temperature controller to be connected.

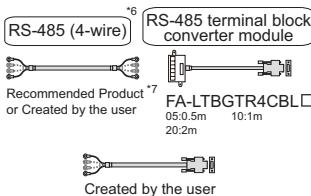
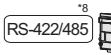
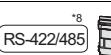
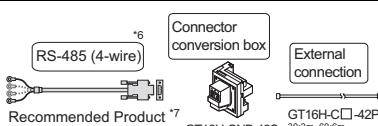
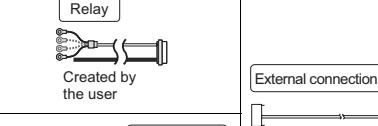


*4: Cables vary depending on the target devices.

For details, refer to 6.EQUIPMENT, SOFTWARE, AND MANUALS and GOT1000 Series Connection Manual.

*5: For using GT15□, use GT15-RS4-9S.

3) RS-485 (4-wire type)

Target device	Cable	Communication unit	GOT
Temperature controller	 <p>*6 RS-485 (4-wire) *7 Recommended Product or Created by the user FA-LTBGTR4CBL□ 05:0.5m 10:1m 20:2m Created by the user</p>	Not required Built in GOT	GT16
	 <p>*8 RS-422/485 GT15-RS4-9S</p>		
	 <p>*8 RS-422/485 GT15-RS4-TE</p>		GT16/GT15
	 <p>*6 RS-485 (4-wire) *7 Recommended Product or Created by the user GT16H-CN8-42S</p>	Not required Built in GOT	GT11
	 <p>Connector conversion box External connection GT16H-C□-42P 30:3m 60:6m 100:10m</p>	Not required Built in GOT	GT16 Handy
	 <p>*6 Relay Created by the user External connection GT11H-C□-37P 30:3m 60:6m 100:10m</p>		GT11 Handy

*6: The terminal differs depending on the manufacturer of the temperature controller to be connected.



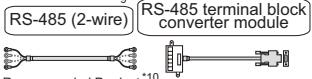
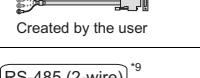
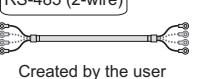
*7: Cables vary depending on the target devices.

For details, refer to 6 EQUIPMENT, SOFTWARE, AND MANUALS and the following.
• GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3
• GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

*8: The available communication unit differs depending on the third party device connected.
For available communication units, refer to the following.

• GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3
• GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3

4) RS-485 (2-wire type)

Target device	Cable	Communication unit	GOT
Temperature controller  	 <p>*9 RS-485 (2-wire) RS-485 terminal block converter module</p> <p>Recommended Product or Created by the user *10 FA-LTBGTR4CBL 05:0.5m 10:1m 20:2m</p>  <p>Created by the user</p>	<p>Not required Built in GOT</p>	 GT16
	 <p>Created by the user</p>	 RS-422/485	 GT15-RS4-TE

*9: The terminal differs depending on the manufacturer of the temperature controller to be connected.



*10: Cables vary depending on the target devices.

For details, refer to 6.EQUIPMENT, SOFTWARE, AND MANUALS and GOT1000 Series Connection Manual.

4.7.2 OMRON temperature controller

For details of the system configuration, refer to "Connection type" in section 4.7.1.

Connectable GOT



Connectable models

Model	GT16/GT15			GT11		
	RS-485	RS-422	RS-232	RS-485	RS-422	RS-232
THERMAC NEO	E5AN	<input type="radio"/> (2-wire type ^{*2})	×	<input type="radio"/> *1	×	×
	E5EN	<input type="radio"/> (2-wire type ^{*2})	×	<input type="radio"/> *1	×	○ *1
	E5CN	<input type="radio"/> (2-wire type ^{*2})	×	<input type="radio"/> *1	×	○ *1
	E5GN	<input type="radio"/> (2-wire type ^{*2})	×	<input type="radio"/> *1	×	○ *1
INPANEL NEO	E5ZN	<input type="radio"/> (2-wire type ^{*2})	×	<input type="radio"/> *1	×	○ *1

*1 When the RS-485 interface of the temperature controller is used, use the RS-232/RS-485 converter.

*2 Not available for GT16 Handy.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□HS-Q□BD



Precautions

■ Precautions on system

- When connecting a GOT to the OMRON temperature controller, set a terminating resistor for the temperature controller.
For the GOT, set a terminating resistor with the DIP switches of the RS-422/485 serial communication unit.
- Clock setting of GOT
The temperature controller does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).



Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of OMRON temperature controller connection
- For connection method with Handy GOT



Chapter 4 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)



Chapter 32 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)

Chapter 43 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

* For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.7.3 SHINKO indicating controller

For details of the system configuration, refer to "Connection type" in section 4.7.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15			GT11		
		RS-485	RS-422	RS-232	RS-485	RS-422	RS-232
ACS-13A series	ACS-13A □ / □, □, C5						
DCL-33A series	DCL-33A- □ / M, □, C5						
JC series	JCS-33A- □ / □□, C5	○ (2-wire type *3)			○ *2		
	JCR-33A- □ / □□, C5						
	JCR-33A- □ / □□, C5						○ *2
JCM-33A series	JCR-33A- □ / □, □, C5						
FCR-100 series	FCR-13A- □ / M, C						
	FCR-13A- □ / M, C5						
	FCR-15A- □ / M, C						
	FCR-15A- □ / M, C5						
FCD-100 series	FCD-13A- □ / M, C	X			X		
	FCD-13A- □ / M, C5						
	FCD-15A- □ / M, C					X	
	FCD-15A- □ / M, C5					X	
FCR-23A series	FCR-23A- □ / M, C	X			○ *1		
	FCR-23A- □ / M, C5						
PC-900 series	PC935- □ / M, C						
	PC935- □ / M, C5	○ (2-wire type *3)			○ *1		
	PC955- □ / M, C						
	PC955- □ / M, C5						
PCD-300 series	PCD-33A- □ / M, C5	○ (2-wire type *3)			○ *2		
FIR series	FIR-201-M,C						
	FIR-201-M,C5		X				
JIR-301-M series	JIR-301-M □, C5	○ (2-wire type *3)			○ *2		

*1 A GOT can connect to only the indicating controller with RS-232 serial communication function.

*2 When the RS-485 interface of the indicating controller is used, use the RS-232/RS-485 converter.

*3 Not available for GT16 Handy.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□-HS-Q□BD

Precautions

■ Precautions on system

- Clock setting of GOT

The indicating controller does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).

■ Other precautions

- Setting station No. of indicating controller

Make sure that the indicating controller corresponding to the station No. set for the host address exists in the system configuration.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of SHINKO indicating controller connection
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



Chapter 9 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)



Chapter 37 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)

Chapter 44 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.7.4 CHINO controller

For details of the system configuration, refer to "Connection type" in section 4.7.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15			GT11		
		RS-485	RS-422	RS-232	RS-485	RS-422	RS-232
LT300 series	LT350, LT370	○ (2-wire type*4)	○	○ *1*2	×	○	○ *1*2
LT400 series	LT450, LT470	○ (2-wire type*4)	○	○ *1*2	×	○	○ *1*2
DZ1000 series	DZ1000*3	○ (2-wire type*4)	○	○ *1*2	×	○	○ *1*2
DZ2000 series	DZ2000*3	○ (2-wire type*4)	○	○ *1*2	×	○	○ *1*2
LT230 series	LT230	○ (2-wire type*4)	×	○ *1	×	×	○ *1
LT830 series	LT830	○ (2-wire type*4)	×	○ *1	×	×	○ *1
GT120 series	GT120	○ (2-wire type*4)	×	○ *1	×	×	○ *1
DB1000 series	DB1000	○ (2-wire type*4)	○	○	×	○	○
DB2000 series	DB2000	○ (2-wire type*4)	○	○	×	○	○

*1 When the RS-485 interface of the controller is used, use the RS-232/RS-485 converter.

*2 When the RS-422 interface of the controller is used, use the RS-232/RS-422 converter.

*3 Select a model for supporting the MODBUS® communication function.

*4 Not available for GT16 Handy.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□-HS-Q□BD

Precautions

Precautions on system

- When connecting a GOT to the CHINO controller, set a terminating resistor for the controller.
For the GOT, set a terminating resistor with the DIP switches of the RS-422/485 serial communication unit.
Set the GOT terminating resistor setting to on.
- Clock setting of GOT
The controller does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).

Other precautions

- Setting station No. of controller

Make sure that the controller corresponding to the station No. set for the host address exists in the system configuration.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of the CHINO controller connection
- For connection method with Handy GOT
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



Chapter 10 in GOT1000 Series Connection Manual
(Non-Mitsubishi Products 1) for GT Works3 (SH-080869ENG)



Chapter 38 in GT16 Handy GOT User's Manual
(JY997D41201, JY997D41202)
Chapter 45 in Handy GOT User's Manual
(JY997D20101, JY997D20102)

4.7.5 FUJI SYS temperature controller

For details of the system configuration, refer to "Connection type" in section 4.7.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15			GT11		
		RS-485	RS-422	RS-232	RS-485	RS-422	RS-232
PXR	PXR3	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}
	PXR4	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}
	PXR5	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}
	PXR9	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}
PXG	PXG4	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}
	PXG5	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}
	PXG9	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}
PXH	PXH9	○ (2-wire type ^{*2})	×	○ ^{*1}	×	×	○ ^{*1}

*1 When the RS-485 interface of the temperature controller is used, use the RS-232/RS-485 converter.

*2 Not available for GT16 Handy.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections Bus connection	GT115□-Q□BD GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□HS-Q□BD

Precautions

Precautions on system

- When connecting a GOT to the FUJI SYS temperature controller, set a terminating resistor for the temperature controller.
For the GOT, set a terminating resistor with the DIP switches of the RS-422/485 serial communication unit.
- Clock setting of GOT
The temperature controller does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).

Precautions on setup

- FIX processing of temperature controller
Do not turn off the temperature controller during FIX processing. Doing so may damage the data stored in a nonvolatile memory, resulting in the failure of the temperature controller.

Other precautions

- Setting station No. of temperature controller
Make sure that the temperature controller corresponding to the station No. set for the host address exists in the system configuration.

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of FUJI SYS temperature controller connection
- ▶ Chapter 5 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
-
- For connection method with Handy GOT
- ▶ Chapter 46 in GT16 Handy GOT User's Manual (JY997D41201,JY997D41202)
Chapter 47 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.7.6 YAMATAKE temperature controller

For details of the system configuration, refer to "Connection type" in section 4.7.1.

Connectable GOT



Connectable models

Model		GT16/GT15			GT11		
		RS-485	RS-422	RS-232	RS-485	RS-422	RS-232
SDC	SDC20/21	<input type="radio"/> (4-wire type)	×	<input type="radio"/> *1	<input type="radio"/> (4-wire type)	×	<input type="radio"/> *1
	SDC30/31	<input type="radio"/> (4-wire type)	×	<input type="radio"/> *1	<input type="radio"/> (4-wire type)	×	<input type="radio"/> *1
	SDC40A/40B/40G	<input type="radio"/> (4-wire type)	×	<input type="radio"/> *1	<input type="radio"/> (4-wire type)	×	<input type="radio"/> *1
	SDC15	<input type="radio"/> (2-wire type *2)	×	<input type="radio"/> *1	×	×	<input type="radio"/> *1
	SDC25/26	<input type="radio"/> (2-wire type) ^{*2}	×	<input type="radio"/> *1	×	×	<input type="radio"/> *1
	SDC35/36	<input type="radio"/> (2-wire type) ^{*2}	×	<input type="radio"/> *1	×	×	<input type="radio"/> *1
DMC	DMC10	<input type="radio"/> (2-wire type) ^{*2}	×	<input type="radio"/> *1	×	×	<input type="radio"/> *1

*1 When the RS-485 interface of the temperature controller is used, use the RS-232/RS-485 converter.

*2 Not available for GT16 Handy.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
	Handy GOT	GT1665HS-VTBD
GT15	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT	GT115□HS-Q□BD



Precautions

■ Precautions on system

- When connecting a GOT to the YAMATAKE temperature controller, connect a terminating resistor for the temperature controller.
For the GOT, set a terminating resistor with the DIP switches of the RS-422/485 serial communication unit.
- Clock setting of GOT
The temperature controller does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of YAMATAKE temperature controller connection
- Chapter 9 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
- For connection method with Handy GOT
- Chapter 50 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 46 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

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4.7.7 YOKOGAWA temperature controller

For details of the system configuration, refer to "Connection type" in section 4.7.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15			GT11		
		RS-485	RS-422	RS-232	RS-485	RS-422	RS-232
GREEN series	UT320	○ (2-wire type ^{*2} /4-wire type)	X	○ ^{*1}	○ (4-wire type)	X	○ ^{*1}
	UT321						
	UT350						
	UT351						
	UT420						
	UT450						
	UT520						
	UT550						
	UT551						
	UT750						
	UP350						
	UP351						
	UP550						
	UP750						
	UM330						
UT-100 series	UM331						
	UM350						
	UM351						
	US1000						
	UT130	○ (2-wire type ^{*2})	X	○ ^{*1}	○ (4-wire type)	X	○ ^{*1}
UT-100 series	UT150						
	UT152						
	UT155						
	UP150						
UT-2000 series	UT2400	○ (4-wire type)	X	○ ^{*1}	○ (4-wire type)	X	○ ^{*1}
	UT2800						

*1 When the RS-485 interface of the temperature controller is used, use the RS-232/RS-485 converter.

*2 Not available for GT16 Handy.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection	All the models (built-in interfaces of the GOT main unit)
GT11	Connections other than RS-232	All the models (connected a communication unit to the GOT main unit)
	RS-232 or RS-422 connections	GT115□-Q□BD
	Bus connection	GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT	RS-232 or RS-422 connections	GT115□-HS-Q□BD

Precautions

■ Precautions on system

- When connecting a GOT to the YOKOGAWA temperature controller, connect a terminating resistor for the temperature controller.
For the GOT, set a terminating resistor with the DIP switches of the RS-422/485 serial communication unit.
- Clock setting of GOT
The temperature controller does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of YOKOGAWA temperature controller connection
- Chapter 8 in GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
-
- For connection method with Handy GOT
 - * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
- Chapter 49 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
➤ Chapter 48 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)

4.7.8 RKC temperature controller

For details of the system configuration, refer to "Connection type" in section 4.7.1.

Connectable GOT



Connectable models

Series	Model	GT16/GT15			GT11		
		RS-485	RS-422	RS-232	RS-485	RS-422	RS-232
SR Mini HG Series	H-PCP-J	○ (2-wire type ^{*4})	○	○	×	○	○
	H-PCP-A, CH-PCP-B	×	○	○	×	○	○
SRZ series	Z-TIO, Z-DIO	○ (2-wire type ^{*4}) ^{*3}	○ ^{*2}	○ ^{*1}	×	○ ^{*2}	○ ^{*1}
CB series (Products specified for MODBUS® communication)	CB100/400/500/700/900	○ (2-wire type ^{*4})	×	○ ^{*1}	×	×	○ ^{*1}
FB series	FB100	○ (2-wire type ^{*4})	×	○ ^{*1}	×	×	○ ^{*1}
	FB400/FB900	○ (2-wire type ^{*4})	○	○ ^{*1}	×	○	○ ^{*1}
RB series	RB100/RB400/RB900	○ (2-wire type ^{*4})	×	○ ^{*1}	×	×	○ ^{*1}

*1 When the RS-485 interface of the temperature controller is used, use the RS-232/RS-485 converter.

*2 Use Communication Extension Module (Z-COM).

*3 Use Communication Extension Module (Z-COM) according to the system configuration.

*4 Not available for GT16 Handy.

The GOT model to be used differs depending on the connection type.

Series	Connection type	GOT model to be used
GT16	RS-232, RS-422/485 or Ethernet connection	All the models (built-in interfaces of the GOT main unit)
	Connections other than the above	All the models (communication units connected to the GOT main unit)
GT15	Handy GOT RS-232, RS-422/485 or Ethernet connection	GT1665HS-VTBD
	RS-232 connection Connections other than RS-232	All the models (built-in interfaces of the GOT main unit) All the models (connected a communication unit to the GOT main unit)
GT11	RS-232 or RS-422 connections Bus connection	GT115□-Q□BD GT115□-Q□BDQ, GT115□-Q□BDA
	Handy GOT RS-232 or RS-422 connections	GT115□HS-Q□BD



Precautions

Precautions on system

- Clock setting of GOT
The temperature controller does not have the clock function. Even though [Adjust] or [Broadcast] is set for the clock setting, the setting is invalid (not processed).

Precautions on setup

- When using RS-422 conversion unit
Set [Communication Setting] in the utility so that the 5VDC power is supplied to the RS-422 conversion unit via the RS-232 interface of the GOT.
- Polar difference between GOT and RKC product
For signal names, poles A and B are reversed between a GOT and an RKC product.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of RKC temperature controller connection
- ▶ Chapter 10 in GOT1000 Series Connection Manual
(Non-Mitsubishi Products 2) for GT Works3 (SH-080870ENG)
-
- For connection method with Handy GOT
- ▶ Chapter 51 in GT16 Handy GOT User's Manual (JY997D41201, JY997D41202)
Chapter 49 in GT11 Handy GOT User's Manual (JY997D20101, JY997D20102)
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

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4.8 Other Devices

4.8.1 Sound output

System configuration

GOT	Option unit	Target device
<ul style="list-style-type: none">Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 GT16/GT15	 <p>Sound output</p> <p>GT15-SOUT</p> <ul style="list-style-type: none">Speaker with amplifier ^{*1}

- *1: For connectable speaker with amplifier types, refer to the following TECHNICAL BULLETIN.

- List of valid devices applicable for GOT1000series (T10-0039)

For TECHNICAL BULLETIN, access the MITSUBISHI ELECTRIC FA NETWORK SERVICE website.
<http://www2.mitsubishielectric.co.jp/english/index.html>

Precautions

Other precautions

- Setting of sound output function with GT Designer3
Set the sound file with GT Designer3 before connecting a speaker with amplifier to the GOT.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of the sound output



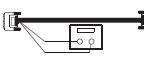
Chapter 6 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

- For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.8.2 External I/O

System configuration

For input only

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 <p>GT16/GT15</p>	 <p>External I/O</p> <p>GT15-DIO GT15-DIOR</p>	 <p>Connection</p>  <p>Created by the user</p> <p>• Operation panel</p> 

For input and output

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 <p>GT16/GT15</p>	 <p>External I/O</p> <p>GT15-DIO GT15-DIOR</p>	 <p>Connection</p>  <p>Created by the user</p> <p>• General input devices such as push button</p>  <p>• Operation panel</p>  <p>• General output devices such as lamp and relay</p>  

*1: When the connector/terminal block converter module is used, the input points are up to 64 points.

Precautions

Other precautions

- Setting of external I/O function with GT Designer3
Set the operation panel with GT Designer3 before connecting an external I/O device.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of external I/O

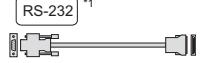


Chapter 7 in GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 (SH-080871ENG)

- For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.8.3 Bar code reader connection

System configuration

GOT	Option unit	Cable	Target device
• Programmable controller and others  For details of the connection, refer to the corresponding system configuration of each connection.	GT16/GT15	Not required Built in GOT	• Bar code reader/ 2D code reader 
	GT15-RS2-9P	RS-232	
	GT11	Not required Built in GOT	
	GT105□/GT104□	Not required Built in GOT	
GT1030/GT1020		Not required Built in GOT	*1 

*1: For connectable bar code readers/2D code readers and system devices, refer to the following TECHNICAL BULLETIN.

• List of valid devices applicable for GOT1000series (T10-0039)

For TECHNICAL BULLETIN, access the MITSUBISHI ELECTRIC FA NETWORK SERVICE website.

<http://www2.mitsubisielctric.co.jp/english/index.html>

Precautions

■ Other precautions

- Setting of bar code function with GT Designer3
Set the bar code function and system information with GT Designer3 before connecting a bar code reader.
- Controller setting
When using the barcode reader, which requires the power supply from the GOT, set Channel No. 8 using the standard interface.
With Channels No. 5 to 7 of the extension interface, the power cannot be supplied.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of bar code reader connection



Chapter 9 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.8.4 Video/RGB connection

System configuration

1) Displaying video image on GOT

GOT	Option unit	Cable	Target device	
<ul style="list-style-type: none"> • Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 *3 GT16	 Video/RGB input GT16M-V4 GT16M-V4R1	 Coaxial  Created by the user	<ul style="list-style-type: none"> • Camcorder *1 and others 
	 *2 GT15	 Video/RGB input GT15V-75V4 GT15V-75V4R1	 Connection  Vision sensor  Coaxial  Created by the user	
	 *3 GT16	 Video/RGB input GT16M-R2 GT16M-V4R1	 Analog RGB  GT15-CVG 50: 5m	
	 *2 GT15	 Video/RGB input GT15V-75R1 GT15V-75V4R1	 Connection  Vision sensor  Analog RGB  Created by the user  GT15-CVG 50: 5m	

2) Displaying GOT screen on external monitor

GOT	Option unit	Cable	Target device	
<ul style="list-style-type: none"> • Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 *3 GT16	 RGB output GT16M-ROUT	 Analog RGB  GT15-CVG 50: 5m	
	 *2 GT15	 RGB output GT15V-75ROUT		

*1: For connectable camcorder and external monitor types, refer to the following TECHNICAL BULLETIN.

*List of valid devices applicable for GOT1000series (T10-0039)

For TECHNICAL BULLETIN, access the MITSUBISHI ELECTRIC FA NETWORK SERVICE website.
<http://www2.mitsubisielctric.co.jp/english/index.html>

*2: Only GT1585V and GT1575V are supported.

*3: Not available for GT16 □□ -VN.



Precautions

Precautions on setup

- Connecting to personal computer

When connecting a personal computer, ground the ground cable of the personal computer.

Other precautions

- Power supply of camcorder

Depending on the camcorder type, a programmable controller and GOT may malfunction due to noise because of the power supply cable for a camcorder. In this case, attach the following line filter to the power supply line.

Recommended line filter: ZHC2203-11 manufactured by TDK Corporation (or equivalent products)

- Power supply of vision sensor

When using a camcorder via the vision sensor, a power supply unit of the vision sensor is required according to the vision sensor type to be used.

- Selecting output of video signal

The video signal can be output from both a power supply unit of a camcorder and a camcorder according to the camcorder and system to be used.

When video signals are output from both the camcorder and power supply unit, the voltage levels for some of the signals are reduced and images may not normally be displayed. In this case, output signals only from the camcorder.

- Powering on camcorder

Power on the camcorder simultaneously with a GOT.



Related Manuals

- For details of system configuration and connection cable

Chapter 11 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

- For precautions and restrictions

- For outlined procedure and checking of video/
RGB connection

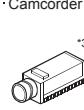
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



4.8.5 Multimedia connection

System configuration

1) Saving video image and displaying it on GOT

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 GT16	 GT16M-MMR	 *3
		 Created by the user	<ul style="list-style-type: none"> Microphone Speaker   *3

2) Sending video image to personal computer

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 GT16	 GT16M-MMR	 *3
		 Created by the user	<ul style="list-style-type: none"> Microphone Speaker   *3
	 GT16M-MMR	 10BASE-T cable 100BASE-TX cable	<ul style="list-style-type: none"> Personal computer  *5
	 Built in GOT		

*1: The cable length differs depending on the specification of the camcorder used by the user.

*2: The target device and specifications of an Ethernet cable differs depending on the Ethernet network system configuration to be used. Connect the cable to appropriate devices such as Ethernet modules, hubs, and transceivers, depending on the Ethernet network system to be used.

*3: For connectable microphone and speaker types, refer to the following TECHNICAL BULLETIN.

•List of valid devices applicable for GOT1000series (T10-0039)

For TECHNICAL BULLETIN, access the MITSUBISHI ELECTRIC FA NETWORK SERVICE website.

<http://www2.mitsubisielctric.co.jp/english/index.html>

*4: When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

For how to check the function version, refer to the following.

•GT16 User's Manual (Hardware)

*5: Install the multimedia interaction tool before use.

For details of the multimedia interaction tool, refer to the following manual.

•GT Designer3 Version1 Screen Design Manual (Functions)

*6: Not available for GT16 □□ -VN.

Precautions

■ Other precautions

- When the multimedia function is used
The multimedia function and the video/RGB function are installed exclusively.
Select either of them to use.
- CF card on the multimedia unit
For the CF card that can be inserted into the multimedia unit, formatting in FAT32 is recommended.
If the CF card formatted in FAT16 is inserted, the following phenomena may occur.
 - Reading, writing or saving of movie files takes time.
 - When a movie file is played, the movie momentarily looks like as if it stopped.
- When connecting GT16 of function version A (Excluding GT16 Handy) to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.
For how to check the function version, refer to the following.
 GT16 User's Manual (Hardware)

Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of multimedia connection
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.
-  Chapter 13 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

4.8.6 Printer connection

System configuration

1) When connecting to PictBridge compatible printer

GOT	Option unit	Cable	Target device	
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 GT16/GT15	 GT15-PRN	 USB	 · PictBridge compatible printer*1

2) When connecting to serial printer

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 GT16/GT15	 Not required Built in GOT	 · Serial printer

*1: Some PictBridge compatible printer models may not print out properly.

For connectable printer types, refer to the following TECHNICAL BULLETIN.

• List of valid devices applicable for GOT1000series (T10-0039)

For TECHNICAL BULLETIN, access the MITSUBISHI ELECTRIC FA NETWORK SERVICE website.
<http://www2.mitsubisielctric.co.jp/english/index.html>

*2: Use the printer connection cable supplied with the printer unit.

*3: The RS-232 cable differs depending on the specification of the printer to be used. Use the RS-232 cable that is compatible with the printer to be used.

Precautions

Other precautions

● Connecting or disconnecting USB cable during printing

When the USB cable is disconnected during printing, some printers hang depending on the PictBridge compatible printer model.

In this case, turn on the main power of the printer again and reboot the printer.

● When printer is disabled

During initialization at power-on of a PictBridge compatible printer, some models of the printers notify a GOT that the printer is enabled.

For the printer models, when printing is started with the GOT, an error may occur in the printer, resulting in printing failures.

When printing is disabled, restart the printer with the following procedure.

- 1) Disconnect the USB cable from the printer.
- 2) Turn off the printer.
- 3) Disconnect the power cable of the printer and completely stop the printer.
- 4) Connect the power cable to the printer.
- 5) Turn on the printer and wait until initialization on the printer is completed.
- 6) Connect the USB cable to the printer.



Related Manuals

- For details of system configuration and connection cable
 - For precautions and restrictions
 - For outlined procedure and checking of printer connection
- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.



Chapter 12 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

4.8.7 Remote personal computer operation connection

System configuration

1) For serial connection

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	GT16 ^{*3} /GT15 ^{*2}	<p>Not required Built in GOT</p> <p>RS-232 GT15-RS2-9P</p>	 <p>RS-232</p>  <p>GT01-C30R2-9S(3m)</p>
	GT16 ^{*3}	<p>Video/RGB input</p> <p>GT16M-R2 GT16M-V4R1</p>	 <p>Analog RGB</p> 
	GT15 ^{*2}	<p>Video/RGB input</p> <p>GT15V-75R1 GT15V-75V4R1</p>	<p>Created by the user^{*1} GT15-C□VG 50: 5m</p>

2) For Ethernet connection

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	GT16 ^{*3*6}	<p>Not required Built in GOT</p>	 <p>Personal computer</p>

*1: The cable length differs depending on the specification of the personal computer to be used.

Use the cable that is compatible with the personal computer to be used.

*2: Only GT1585V and GT1575V are available.

*3: Not available for GT16 □ -VN.

*4: The target device of a twisted pair cable differs depending on the Ethernet network system configuration to be used.
Connect the cable to appropriate devices such as Ethernet modules, hubs, and transceivers, depending on the Ethernet network system to be used.
Use cables, connectors, and hubs that meet the IEEE802.3 10BASE-T/100BASE-TX standards.

*5: A straight cable is available.

A cross cable is available for connecting the personal computer and GOT using the Ethernet cable directly.

*6: When connecting GT16 (Excluding GT16 Handy) of function version A to an equipment that meets the 10BASE (-T/2/5) standard, use a switching hub and operate in an environment where 10Mbps and 100Mbps can be mixed.

For how to check the function version, refer to the following.

•GT16 User's Manual (Hardware)

Precautions

■ Other precautions

● Personal computer side setting

Before using the remote personal computer operation function, install the remote personal computer operation driver on the personal computer.

After the driver installation, check that the driver is correctly installed.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of remote personal computer operation connection

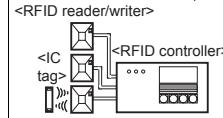


Chapter 10 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

- * For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.8.8 RFID connection

System configuration

GOT	Option unit	Cable	Target device
<ul style="list-style-type: none"> Programmable controller and others  <p>For details of the connection, refer to the corresponding system configuration of each connection.</p>	 GT16/GT15	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">Not required</div> <div>Built in GOT</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">RS-232</div>  GT15-RS2-9P </div>	 *1
		<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">Not required</div> <div>Built in GOT</div> </div>	

*1: For connectable RFID controllers and system equipment, refer to the following TECHNICAL BULLETIN.
List of valid devices applicable for GOT1000 series (GOT-A-0010)

[Visit the MITSUBISHI ELECTRIC FA NETWORK SERVICE website (MELFANSweb) to refer to the TECHNICAL BULLETIN.
<http://www.mitsubishi-electric.co.jp/melfansweb/english/index.html>]

Precautions

Other precautions

- RFID function setting on GT Designer2
Set the RFID function and system information with GT Designer2 before connecting a RFID controller.

Controller setting

(1) In case of external authentication

When using external authentication with the RFID controller, set Channel No. 8 using the standard interface.

When using Channels No. 5 to 7 of the extension interface for the RFID connection, external authentication cannot be used.

For details of the external authentication, refer to the following manual.

- GT Designer2 Version □Screen Design Manual

(2) When the power supply is required

When using the RFID controller, which requires the power supply from the GOT, set Channel No. 8 using the standard interface.

With Channels No. 5 to 7 of the extension interface, the power cannot be supplied.

Communication in multiple RFID readers/writers connection

When connecting multiple RFID readers/writers, some controllers may communicate with each RFID reader/writer.

For communicating the RFID controller with the each RFID reader/writer, set an interlock so that the RFID controller does not communicate with RFID readers/writers until the executing communication is completed.

Related Manuals

- For details of system configuration and connection cable
- For precautions and restrictions
- For outlined procedure and checking of RFID connection

Chapter 14 in GOT1000 Series Connection Manual
(Microcomputer, MODBUS Products, Peripherals) for
GT Works3 (SH-080871ENG)

* For restrictions and precautions on controllers connected to a GOT, refer to the manual for each controller.

4.9 Precautions

● Precautions on setup

(1) When installing communication unit or connecting cable

Shut off all phases of the GOT power.

(2) When using RS-422 conversion unit

Set [Communication Setting] in the utility so that the 5VDC power is supplied to the RS-422 conversion unit via the RS-232 interface of the GOT.

5. COMPLIANCE WITH OVERSEAS STANDARDS

This chapter describes the compliance with overseas standards for the GOT, communication interface, and option.

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5. COMPLIANCE WITH OVERSEAS STANDARDS

The GOT is compliant with the following safety standards, including UL standard.

For the latest compliance with overseas standards, access the MITSUBISHI ELECTRIC FA NETWORK SERVICE website.

<http://www2.mitsubishielectric.co.jp/english/index.html>



EMC: EMC Directive
LVD: Low Voltage Directive

UL:Underwriters Laboratories

Product name	Model	UL/cUL	CE		Shipping standard					
			EMC	LVD	ABS	BV	DNV	LR	NK	RINA
GT16	GT1695M-XTBA	○	○	○	△	△	△	△	△	△
	GT1695M-XTBD	○	○	-	△	△	△	△	△	△
	GT1685M-STBA	○	○	○	△	△	△	△	△	△
	GT1685M-STBD	○	○	-	△	△	△	△	△	△
	GT1675M-STBA	○	○	○	△	△	△	△	△	△
	GT1675M-STBD	○	○	-	△	△	△	△	△	△
	GT1675M-VTBA	○	○	○	△	△	△	△	△	△
	GT1675M-VTBD	○	○	-	△	△	△	△	△	△
	GT1675-VNBA	○	○	○	△	△	△	△	△	△
	GT1675-VNBD	○	○	-	△	△	△	△	△	△
	GT1672-VNBA	○	○	○	△	△	△	△	△	△
	GT1672-VNBD	○	○	-	△	△	△	△	△	△
	GT1665M-STBA	○	○	○	△	△	△	△	△	△
	GT1665M-STBD	○	○	-	△	△	△	△	△	△
	GT1665M-VTBA	○	○	○	△	△	△	△	△	△
	GT1665M-VTBD	○	○	-	△	△	△	△	△	△
	GT1662-VNBA	○	○	○	△	△	△	△	△	△
	GT1662-VNBD	○	○	-	△	△	△	△	△	△
	GT1665HS-VTBD	△	△	△	×	×	×	×	×	×
GOT main unit	GT1595-XTBA	○	○	○	○	○	○	○	○	○
	GT1595-XTBD	○	○	-	○	○	○	○	○	○
	GT1585V-STBA	○	○	○	x	x	x	x	x	x
	GT1585V-STBD	○	○	-	x	x	x	x	x	x
	GT1585-STBA	○	○	○	○	○	○	○	○	○
	GT1585-STBD	○	○	-	○	○	○	○	○	○
	GT1575V-STBA	○	○	○	x	x	x	x	x	x
	GT1575V-STBD	○	○	-	x	x	x	x	x	x
	GT1575-STBA	○	○	○	○	○	○	○	○	○
	GT1575-STBD	○	○	-	○	○	○	○	○	○
	GT1575-VTBA	○	○	○	○	○	○	○	○	○
	GT1575-VTBD	○	○	-	○	○	○	○	○	○
	GT1575-VNBA	○	○	○	○	○	○	○	○	○
	GT1575-VNBD	○	○	-	○	○	○	○	○	○
	GT1572-VNBA	○	○	○	○	○	○	○	○	○
	GT1572-VNBD	○	○	-	○	○	○	○	○	○
	GT1565-VTBA	○	○	○	○	○	○	○	○	○
	GT1565-VTBD	○	○	-	○	○	○	○	○	○
	GT1562-VNBA	○	○	○	○	○	○	○	○	○
	GT1562-VNBD	○	○	-	○	○	○	○	○	○
GT11	GT1555-VTBD	○	○	-	○	○	○	○	○	○
	GT1555-QTBD	○	○	-	○	○	○	○	○	○
	GT1555-QSBD	○	○	-	○	○	○	○	○	○
	GT1155-QTBDQ	○	○	-	○	○	○	○	○	○
	GT1155-QSBDQ	○	○	-	○	○	○	○	○	○
	GT1155-QSBD	○	○	-	□	□	□	□	□	□
	GT1155HS-QSBD	○	○	-	□	□	□	□	□	□
	GT1150-QLBDQ	○	○	-	○	○	○	○	○	○
	GT1150-QLBDA	○	○	-	○	○	○	○	○	○
	GT1150-QLBD	○	○	-	□	□	□	□	□	□
GT10	GT1150HS-QLBD	○	○	-	□	□	□	□	□	□
	GT1055-QSBD	○	○	-	□	□	□	□	□	□
	GT1050-QLBBD	○	○	-	□	□	□	□	□	□
	GT1045-QSBD	○	○	-	□	□	□	□	□	□
	GT1040-QBBB	○	○	-	□	□	□	□	□	□

○: Compliant △: Soon to be compliant □: Under review ×: Not compliant -: Not applied

Product name		Model	UL/cUL	CE		Shipping standard					
				EMC	LVD	ABS	BV	DNV	LR	NK	RINA
GOT main unit	GT10	GT1030-LBD	○	○	-	□	□	□	□	□	□
		GT1030-LBDW	○	○	-	□	□	□	□	□	□
		GT1030-LBD2	○	○	-	□	□	□	□	□	□
		GT1030-LBDW2	○	○	-	□	□	□	□	□	□
		GT1030-LBL	○	○	-	□	□	□	□	□	□
		GT1030-LBLW	○	○	-	□	□	□	□	□	□
		GT1030-LWD	○	○	-	□	□	□	□	□	□
		GT1030-LWDW	○	○	-	□	□	□	□	□	□
		GT1030-LWD2	○	○	-	□	□	□	□	□	□
		GT1030-LWDW2	○	○	-	□	□	□	□	□	□
		GT1030-LWL	○	○	-	□	□	□	□	□	□
		GT1030-LWLW	○	○	-	□	□	□	□	□	□
		GT1020-LBD	○	○	-	□	□	□	□	□	□
		GT1020-LBDW	○	○	-	□	□	□	□	□	□
		GT1020-LBD2	○	○	-	□	□	□	□	□	□
		GT1020-LBDW2	○	○	-	□	□	□	□	□	□
		GT1020-LBL	○	○	-	□	□	□	□	□	□
		GT1020-LBLW	○	○	-	□	□	□	□	□	□
		GT1020-LWD	○	○	-	□	□	□	□	□	□
		GT1020-LWDW	○	○	-	□	□	□	□	□	□
		GT1020-LWD2	○	○	-	□	□	□	□	□	□
		GT1020-LWDW2	○	○	-	□	□	□	□	□	□
		GT1020-LWL	○	○	-	□	□	□	□	□	□
		GT1020-LWLW	○	○	-	□	□	□	□	□	□
Communication unit	Bus connection unit	GT15-QBUS	○	○	-	○	○	○	○	○	○
		GT15-QBUS2	○	○	-	○	○	○	○	○	○
		GT15-ABUS	○	○	-	○	○	○	○	○	○
		GT15-ABUS2	○	○	-	○	○	○	○	○	○
		GT15-75QBUSL	○	○	-	○	○	○	○	○	○
		GT15-75QBUS2L	○	○	-	○	○	○	○	○	○
		GT15-75ABUSL	○	○	-	○	○	○	○	○	○
		GT15-75ABUS2L	○	○	-	○	○	○	○	○	○
		GT15-RS2-9P	○	○	-	○	○	○	○	○	○
		Serial communication unit GT15-RS4-9S	○	○	-	○	○	○	○	○	○
	RS-422 conversion unit	GT15-RS4-T4	○	○	-	○	○	○	○	○	○
		GT15-RS2T4-9P GT15-RS2T4-25P	○	○	-	○	○	○	○	○	○
	Ethernet communication unit	GT15-J71E71-100	○	○	-	○	○	○	○	○	○
		MELSECNET/H communication unit GT15-J71LP23-25	○	○	-	○	○	○	○	○	○
	CC-Link communication unit	GT15-J71BR13	○	○	-	x	x	x	x	x	x
		GT15-J61BT13	○	○	-	x	x	x	x	x	x
	CC-Link IE controller network communication unit	GT15-J71GP23-SX	○	○	-	○	○	○	○	○	○
		GT11H-CCL GT11HS-CCL	x	x	-	x	x	x	x	x	x
Option unit	Serial multi-drop connection unit	GT01-RS4-M	○	○	-	□	□	□	□	□	□
		Printer unit GT15-PRN	○	○	-	○	○	○	○	○	○
		Multimedia unit GT16M-MMR	○	○	-	x	x	x	x	x	x
		Video input unit GT15V-75V4	○	○	-	x	x	x	x	x	x
		RGB input unit GT16M-V4	○	○	-	x	x	x	x	x	x
		GT15V-75R1 GT16M-R2	○	○	-	x	x	x	x	x	x
		Video/RGB input unit GT16M-V4R1	○	○	-	x	x	x	x	x	x
		GT16M-V4R1 GT15V-75ROUT	○	○	-	x	x	x	x	x	x
		RGB output unit GT16M-ROUT	○	○	-	x	x	x	x	x	x
		CF card unit GT15-CFCF	○	○	-	○	○	○	○	○	○
		CF card extension unit GT15-CFEX-C08SET	○	○	-	○	○	○	○	○	○
		Sound output unit GT15-SOUT	○	○	-	○	○	○	○	○	○
		External I/O unit GT15-DIO GT15-DIOR	○	○	-	○	○	○	○	○	○

○: Compliant △: Soon to be compliant □: Under review x: Not compliant -: Not applied

Product name		Model	UL/cUL	CE		Shipping standard					
				EMC	LVD	ABS	BV	DNV	LR	NK	RINA
Backlight	Backlight	GT16-90XLTT	*2	*2	*2	△	△	△	△	△	△
		GT16-80SLTT	*2	*2	*2	△	△	△	△	△	△
		GT16-70SLTT	*2	*2	*2	△	△	△	△	△	△
		GT16-70VLTT	*2	*2	*2	△	△	△	△	△	△
		GT16-60VLTN	*2	*2	*2	△	△	△	△	△	△
		GT16-60VLTT	*2	*2	*2	△	△	△	△	△	△
		GT16-60VLTN	*2	*2	*2	△	△	△	△	△	△
		GT15-90XLTT	*2	*2	*2	*2	*2	*2	*2	*2	*2
		GT15-80SLTT	*2	*2	*2	*2	*2	*2	*2	*2	*2
		GT15-70SLTT	*2	*2	*2	*2	*2	*2	*2	*2	*2
		GT15-70VLTT	*2	*2	*2	*2	*2	*2	*2	*2	*2
		GT15-70VLTN	*2	*2	*2	*2	*2	*2	*2	*2	*2
		GT15-60VLTT	*2	*2	*2	*2	*2	*2	*2	*2	*2
		GT15-60VLTN	*2	*2	*2	*2	*2	*2	*2	*2	*2
Option function board	Option function board	GT16-MESB	○	○	-	△	△	△	△	△	△
		GT15-FNB	○	○	-	○	○	○	○	○	○
		GT15-QFN	○	○	-	○	○	○	○	○	○
		GT15-QFNB16M	○	○	-	○	○	○	○	○	○
		GT15-QFNB32M	○	○	-	○	○	○	○	○	○
		GT15-QFNB48M	○	○	-	○	○	○	○	○	○
		GT11-50FNB	×	○	-	□	□	□	□	□	□
		GT15-MESB48M	○	○	-	○	○	○	○	○	○
		GT10 memory loader	GT10-LDR	×	○*1	-	-	-	-	-	-
		GT10 memory board	GT10-50FMB	×	○	-	-	-	-	-	-
Option unit	Option unit	GT16-90PSCB	○	-	-	-	-	-	-	-	-
		GT16-90PSGB	○	-	-	-	-	-	-	-	-
		GT16-90PSCW	○	-	-	-	-	-	-	-	-
		GT16-90PSGW	○	-	-	-	-	-	-	-	-
		GT16-80PSCB	○	-	-	-	-	-	-	-	-
		GT16-80PSGB	○	-	-	-	-	-	-	-	-
		GT16-80PSCW	○	-	-	-	-	-	-	-	-
		GT16-80PSGW	○	-	-	-	-	-	-	-	-
		GT16-70PSCB	○	-	-	-	-	-	-	-	-
		GT16-70PSGB	○	-	-	-	-	-	-	-	-
		GT16-70PSCW	○	-	-	-	-	-	-	-	-
		GT16-70PSGW	○	-	-	-	-	-	-	-	-
		GT16-60PSCB	○	-	-	-	-	-	-	-	-
		GT16-60PSGB	○	-	-	-	-	-	-	-	-
		GT16-60PSCW	○	-	-	-	-	-	-	-	-
Protective sheet	Protective sheet	GT16-60PSGW	○	-	-	-	-	-	-	-	-
		GT15-90PSCB	○	-	-	-	-	-	-	-	-
		GT15-90PSGB	○	-	-	-	-	-	-	-	-
		GT15-90PSCW	○	-	-	-	-	-	-	-	-
		GT15-90PSGW	○	-	-	-	-	-	-	-	-
		GT15-80PSCB	○	-	-	-	-	-	-	-	-
		GT15-80PSGB	○	-	-	-	-	-	-	-	-
		GT15-80PSCW	○	-	-	-	-	-	-	-	-
		GT15-80PSGW	○	-	-	-	-	-	-	-	-
		GT15-70PSCB	○	-	-	-	-	-	-	-	-
		GT15-70PSGB	○	-	-	-	-	-	-	-	-
		GT15-70PSCW	○	-	-	-	-	-	-	-	-
		GT15-70PSGW	○	-	-	-	-	-	-	-	-
		GT15-60PSCB	○	-	-	-	-	-	-	-	-
		GT15-60PSGB	○	-	-	-	-	-	-	-	-
		GT15-60PSCW	○	-	-	-	-	-	-	-	-
		GT15-60PSGW	○	-	-	-	-	-	-	-	-
		GT11-50PSCB	×	-	-	-	-	-	-	-	-
		GT11-50PSGB	×	-	-	-	-	-	-	-	-
		GT11-50PSCW	×	-	-	-	-	-	-	-	-
		GT11-50PSGW	×	-	-	-	-	-	-	-	-
		GT11H-50PSC	×	-	-	-	-	-	-	-	-

○: Compliant △: Soon to be compliant □: Under review ×: Not compliant -: Not applied

*1 This product will be switched after the stock of versions not compliant with CE and UL/cUL is consumed. Therefore, please consult your local representative.

*2 Compliant with the standard with the product built in the GOT.

Product name		Model	UL/cUL	CE		Shipping standard					
				EMC	LVD	ABS	BV	DNV	LR	NK	RINA
				x	-	-	-	-	-	-	-
Option unit	Protective sheet	GT10-50PSCB	x	-	-	-	-	-	-	-	-
		GT10-50PSGB	x	-	-	-	-	-	-	-	-
		GT10-50PSCW	x	-	-	-	-	-	-	-	-
		GT10-50PSGW	x	-	-	-	-	-	-	-	-
		GT10-40PSCB	x	-	-	-	-	-	-	-	-
		GT10-40PSGB	x	-	-	-	-	-	-	-	-
		GT10-40PSCW	x	-	-	-	-	-	-	-	-
		GT10-30PSCB	x	-	-	-	-	-	-	-	-
		GT10-30PSGB	x	-	-	-	-	-	-	-	-
		GT10-30PSCW	x	-	-	-	-	-	-	-	-
		GT10-30PSGW	x	-	-	-	-	-	-	-	-
		GT10-20PSCB	x	-	-	-	-	-	-	-	-
		GT10-20PSGB	x	-	-	-	-	-	-	-	-
		GT10-20PSCW	x	-	-	-	-	-	-	-	-
		GT10-20PSGW	x	-	-	-	-	-	-	-	-
	USB environmental protection cover	GT16-UCOVER	*2	-	-	△	△	△	△	△	△
		GT15-UCOVER	*2	-	-	*2	*2	*2	*2	*2	*2
		GT11-50UCOVER	*2	-	-	□	□	□	□	□	□
Option unit	Protective cover for oil	GT05-90PCO	x	-	-	-	-	-	-	-	-
		GT05-80PCO	x	-	-	-	-	-	-	-	-
		GT05-70PCO	x	-	-	-	-	-	-	-	-
		GT05-60PCO	x	-	-	-	-	-	-	-	-
		GT05-50PCO	x	-	-	-	-	-	-	-	-
	Emergency stop switch guard	GT11H-50ESCOV	x	-	-	-	-	-	-	-	-
		GT15-90STAND	-	-	-	-	-	-	-	-	-
	Stand	GT15-80STAND	-	-	-	-	-	-	-	-	-
		GT15-70STAND	-	-	-	-	-	-	-	-	-
		GT15-50STAND	-	-	-	-	-	-	-	-	-
	CF card	GT05-MEM-16MC	○	○	-	○	○	○	○	○	○
		GT05-MEM-32MC	○	○	-	○	○	○	○	○	○
		GT05-MEM-64MC	○	○	-	○	○	○	○	○	○
		GT05-MEM-128MC	○	○	-	○	○	○	○	○	○
		GT05-MEM-256MC	○	○	-	○	○	○	○	○	○
		GT05-MEM-512MC	○	○	-	○	○	○	○	○	○
		GT05-MEM-1GC	○	○	-	○	○	○	○	○	○
		GT05-MEM-2GC	○	○	-	○	○	○	○	○	○
		GT05-MEM-4GC	○	○	-	○	○	○	○	○	○
		GT05-MEM-8GC	○	○	-	○	○	○	○	○	○
	Memory card adaptor	GT05-MEM-16GC	○	○	-	○	○	○	○	○	○
		GT05-MEM-ADPC	○	-	-	-	-	-	-	-	-
Attachment	Attachment	GT15-70ATT-98	-	-	-	-	-	-	-	-	-
		GT15-70ATT-87	-	-	-	-	-	-	-	-	-
		GT15-60ATT-97	-	-	-	-	-	-	-	-	-
		GT15-60ATT-96	-	-	-	-	-	-	-	-	-
		GT15-60ATT-87	-	-	-	-	-	-	-	-	-
		GT15-60ATT-77	-	-	-	-	-	-	-	-	-
		GT15-50ATT-98W	-	-	-	-	-	-	-	-	-
		GT15-50ATT-85	-	-	-	-	-	-	-	-	-
	Battery	GT15-BAT	○	*2	*2	○	○	○	○	○	○

○: Compliant △: Soon to be compliant □: Under review ×: Not compliant -: Not applied

*2 Compliant with the standard with the product built in the GOT.

MEMO

6. EQUIPMENT, SOFTWARE, AND MANUALS

This chapter describes equipment, software, and manuals related to the GOT.

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6. EQUIPMENT, SOFTWARE, AND MANUALS

Main unit model name

GT1695M-XTBA

Code	Screen size	Code	Display colors	Code	Mounting type	Code	Resolution	Code	Display device	Code	Power supply	Code	Communication interface
9	15"	5	256 colors or more	V	Compatible with video/RGB	X	XGA (1024x768 dots)	T	TFT color (high brightness, wide viewing angle)	A	100 to 240VAC D 24VDC L 5VDC	Q ¹	With built-in bus connection interface for QCPU (Q motion controller CPU Q series)
8	12.1"	2	16 colors	None	Panel mount type	S	SVGA (800x600 dots)	N	TFT color			A ¹	With built-in bus connection interface for QnA/ACU/Motion controller CPU (A series)
7	10.4"	0	Monochrome	HS	Handy type	V	VGA (640x480 dots)	S	STN color			Z ²	With built-in RS-232
6	8.4", 6.5"			M	Compatible with multimedia & Video/RGB	Q	QVGA (320x240 dots)	B	STN monochrome (blue/white)			None ²	With built-in RS-422
5	5.7"							L	STN monochrome			*1	: GT115-Q: BDQ and GT115-Q: BDQ only
4	4.7"											*2	: GT10 only
3	4.5"												
2	3.7"												

GT16 A variety of functions integrated functions, including Ethernet and multimedia

GT15 A wide range of applications from networking to standalone use

GT11 Standard model with basic functions for standalone use

GT10 Packed with the functionality necessary for a HMI

* For inquiries relating to products which conform to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

GOT main units

	Model name	Screen size [resolution]	Display	Display colors (number of colors)	Power supply	Memory size	Remarks
GT16	GT1695M-XTBA	15" XGA [1024x768 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1695M-XTBD				100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1685M-STBA	12.1" SVGA [800x600 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1685M-STBD				100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1675M-STBA	10.4" SVGA [800x600 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1675M-STBD				100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1675M-VTBA	12.1" SVGA [800x600 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1675M-VTBD				100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1675-VNBA	10.4" VGA [640x480 dots]	TFT color LCD	4096 colors	100-240VAC 24VDC	11MB	—
	GT1675-VNBD				100-240VAC 24VDC	11MB	—
	GT1672-VNBA	10.4" VGA [640x480 dots]	TFT color LCD	16 colors	100-240VAC 24VDC	11MB	—
	GT1672-VNBD				100-240VAC 24VDC	11MB	—
GT16D	GT1665M-STBA	8.4" SVGA [800x600 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1665M-STBD				100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1665M-VTBA	8.4" VGA [640x480 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1665M-VTBD				100-240VAC 24VDC	15MB	Compatible with multimedia & Video/RGB
	GT1662-VNBA	8.4" VGA [640x480 dots]	TFT color LCD	16 colors	100-240VAC 24VDC	11MB	—
	GT1662-VNBD				100-240VAC 24VDC	11MB	—
	GT1665HS-VTBD	6.5" VGA [640x480 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	24VDC	15MB	—
	GT1665HS-VTBD				24VDC	15MB	—
	GT1595	15" XGA [1024x768 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	9MB	—
	GT1595-XTBD				100-240VAC 24VDC	9MB	—
GT15	GT1585V-STBA	12.1" SVGA [800x600 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	9MB	Compatible with VideoRGB
	GT1585V-STBD				100-240VAC 24VDC	9MB	—
	GT1575V-STBA	10.4" SVGA [800x600 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	9MB	Compatible with VideoRGB
	GT1575V-STBD				100-240VAC 24VDC	9MB	—
	GT1575-VTBA	10.4" VGA [640x480 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	9MB	—
	GT1575-VTBD				100-240VAC 24VDC	9MB	—
	GT1575-VNBA	10.4" VGA [640x480 dots]	TFT color LCD	256 colors	100-240VAC 24VDC	5MB	—
	GT1575-VNBD				100-240VAC 24VDC	5MB	—
	GT1572-VNBA	10.4" VGA [640x480 dots]	TFT color LCD	16 colors	100-240VAC 24VDC	5MB	—
	GT1572-VNBD				100-240VAC 24VDC	5MB	—
GT15D	GT1565-VTBA	8.4" VGA [640x480 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	100-240VAC 24VDC	9MB	—
	GT1565-VTBD				100-240VAC 24VDC	9MB	—
	GT1562-VNBA	8.4" VGA [640x480 dots]	TFT color LCD	16 colors	100-240VAC 24VDC	5MB	—
	GT1562-VNBD				100-240VAC 24VDC	5MB	—
	GT1555-VTBD	5.7" VGA [640x480 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors	24VDC	9MB	—
	GT1555-QSBD	5.7" QVGA [320x240 dots]	STN color LCD	4096 colors			
	GT1555-QLBD		STN monochrome LCD	Monochrome (black/white) 16 gray scales			
	GT1555-QTBD						
	GT1555-QTBDQ						Dedicated to Q bus connection
	GT1555-QTBDQA						Dedicated to A bus connection
GT11	GT1155-QSBD	5.7" QVGA [320x240 dots]	TFT color LCD	256 colors	24VDC	3MB	—
	GT1155-QLBD		STN color LCD				Dedicated to Q bus connection
	GT1155-QLBDQ		STN monochrome LCD	Monochrome (black/white) 16 gray scales			Dedicated to A bus connection
	GT1155-QTBD						—
	GT1155-QTBDQ						Dedicated to Q bus connection
	GT1155-QSBD						Dedicated to A bus connection
	GT1155-QLBD						—
	GT1150						Dedicated to Q bus connection
	GT1150-QLBDQ						Dedicated to A bus connection
	GT1150-QSBD						—
Handy GOT	GT1155HS-QSBD		STN color LCD	256 colors			
	GT1150HS-QLBD		STN monochrome LCD	Monochrome (black/white) 16 gray scales			

GOT main units

Model name		Screen size [resolution]	Display	Display colors (number of colors)	Power supply	Memory size	Remarks
GT10	GT105□	5.7" QVGA [320×240 dots]	STN color LCD	256 colors	24VDC	3MB	—
	GT1050-QBBB	STN monochrome LCD	Monochrome (blue/white) 16 gray scales	256 colors	24VDC	3MB	—
	GT1045-QSBD	STN color LCD	Monochrome (blue/white) 16 gray scales	256 colors	24VDC	3MB	—
	GT1040-QBBB	STN monochrome LCD	Monochrome (blue/white) 16 gray scales	256 colors	24VDC	3MB	—
	GT1030-LBD	4.5" [288×96 dots]	STN monochrome LCD	Frame color	3-color LED (green, orange, red)	24VDC	1.5MB
	GT1030-LBD2			Black	Monochrome (black/white)	5VDC	1.5MB
	GT1030-LBL			White	3-color LED (white, pink, red)	24VDC	1.5MB
	GT1030-LBDW			Black	3-color LED (green, orange, red)	24VDC	1.5MB
	GT1030-LBDW2			White	Monochrome (black/white)	5VDC	1.5MB
	GT1030-LBLW		STN monochrome LCD	Black	3-color LED (white, pink, red)	24VDC	1.5MB
	GT1030-LWD			White	Monochrome (black/white)	5VDC	1.5MB
	GT1030-LWD2			Black	3-color LED (green, orange, red)	24VDC	1.5MB
	GT1030-LWL			White	Monochrome (black/white)	5VDC	1.5MB
	GT1030-LWDW			Black	3-color LED (white, pink, red)	24VDC	1.5MB
GT1020	GT1020-LBD	3.7" [160×64 dots]	STN monochrome LCD	Black	3-color LED (green, orange, red)	24VDC	512KB
	GT1020-LBD2			White	Monochrome (black/white)	5VDC	512KB
	GT1020-LBL			Black	3-color LED (white, pink, red)	24VDC	512KB
	GT1020-LBDW			White	Monochrome (black/white)	5VDC	512KB
	GT1020-LBDW2			Black	3-color LED (green, orange, red)	24VDC	512KB
	GT1020-LBLW		STN monochrome LCD	White	Monochrome (black/white)	5VDC	512KB
	GT1020-LWD			Black	3-color LED (white, pink, red)	24VDC	512KB
	GT1020-LWD2			White	Monochrome (black/white)	5VDC	512KB
	GT1020-LWL			Black	3-color LED (green, orange, red)	24VDC	512KB
	GT1020-LWDW			White	Monochrome (black/white)	5VDC	512KB
	GT1020-LWDW2			Black	3-color LED (white, pink, red)	24VDC	512KB
	GT1020-LBLW			White	Monochrome (black/white)	5VDC	512KB

Communication interface

Product name	Model name	Specifications	Applicable model				
			GT16	GT15	GT11	Handy GOT	GT10
Bus connection unit	GT15-QBUS	Bus connection (1ch) unit standard model for QCPU (Q mode)/motion controller CPU (Q series)	●	●	—	—	—
	GT15-QBUS2	Bus connection (2ch) unit standard model for QCPU (Q mode)/motion controller CPU (Q series)	●	●	—	—	—
	GT15-ABUS	Bus connection (1ch) unit standard model for QnA/ACPUM/motion controller CPU (A series)	●	●	—	—	—
	GT15-ABUS2	Bus connection (2ch) unit standard model for QnA/ACPUM/motion controller CPU (A series)	●	●	—	—	—
	GT15-75QBUSL	Bus connection (1ch) unit thin model ¹⁾ for QCPU (Q mode)/motion controller CPU (Q series)	●	●	—	—	—
	GT15-75QBUS2L	Bus connection (2ch) unit thin model ¹⁾ for QCPU (Q mode)/motion controller CPU (Q series)	●	●	—	—	—
	GT15-75ABUSL	Bus connection (1ch) unit thin model ¹⁾ for QnA/ACPUM/motion controller CPU (A series)	●	●	—	—	—
	GT15-75ABUS2L	Bus connection (2ch) unit thin model ¹⁾ for QnA/ACPUM/motion controller CPU (A series)	●	●	—	—	—
	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)) ²⁾ ³⁾	●	●	—	—	—
Serial communication unit	GT15-RS4-TE	RS-422/485 serial communication unit (terminal block) ²⁾	●	●	—	—	—
	GT15-RS2-9P	RS-232 serial communication unit (D-sub 9-pin (male))	●	●	—	—	—
	GT15-RS4-5A	RS-422/485 serial communication unit (D-sub 9-pin (female)) ²⁾ ³⁾	●	●	—	—	—
	GT15-RS4-TE	RS-422/485 serial communication unit (terminal block) ²⁾	●	●	—	—	—
RS-422 conversion unit	GT15-RS2T4-9P	RS-232 → RS-422 conversion unit	RS-422 connector: 9-pin		● ⁴⁾	—	—
	GT15-RS2T4-25P	RS-232 → RS-422 conversion unit	RS-422 connector: 25-pin		● ⁴⁾	—	—
	GT15-J1LP23-25	Optical loop unit	●	●	—	—	—
MELSECNET/T/H communication unit	GT15-J1BR13	Coaxial bus unit	●	●	—	—	—
	GT15-J1GP23-SX	Optical loop unit	●	●	—	—	—
CC-Link IE controller network/ communication unit	GT15-J61BT13	Intelligent device station unit (supporting CC-Link version 2)	●	●	—	—	—
	GT15-J1E71-100	Ethernet (100Base-TX) unit	—	●	—	—	—
Ethernet communication unit	GT15-RS4-M	For GOT multi-drop connection	● ⁵⁾	● ⁵⁾	● ⁵⁾	—	● ⁵⁾
	GT10-9PTTS	Conversion connector between D sub 9-pin male and Europe terminal block 5-pin	—	—	● ⁵⁾	—	● ⁵⁾
Connector conversion adapter	GT11HS-CCL	CC-Link interface unit for Handy GOT	—	—	—	●	—
	GT11HC-CCL	CC-Link interface unit for GOT	—	—	—	—	—

1): The unit cannot be used for GOT connection units.

2): The unit may not be able to be used depending on the connection destination. See "4.7 Connection type (page 269 to page 272)" in "4.7 Third Party Temperature Controller".

3): The unit cannot be used when connecting to temperature controllers/indicating controllers via RS-485 (2-wire type).

4): The unit cannot be used with the GT15SD.

5): For the hardware version compatible with GOT, please contact your local sales office.

For the instructions for connection of GT16/GT15, please contact your local sales office.

Optional units

Product name	Model name	Specifications	Applicable model				
			GT16	GT15	GT11	Handy GOT	GT10
Printer unit	GT15-PRN	USB slave (PictBridge) for printer connection, 1ch *Cable for printer connection (3m) included	●	●	—	—	—
Multimedia unit	GT16M-MMR	For video input (NTSC/PAL) 1ch motion image playback	● ²⁾	—	—	—	—
Video input unit	GT16M-V4	For video input (NTSC/PAL) 4ch	● ²⁾	—	—	—	—
	GT15V-75V4	For video input (NTSC/PAL) 4ch	—	● ³⁾	—	—	—
RGB input unit	GT16M-R2	For analog RGB input 2ch	● ²⁾	—	—	—	—
	GT15V-75R1	For analog RGB input 1ch	—	● ³⁾	—	—	—
Video/RGB input unit	GT16M-V4R1	For video input (NTSC/PAL) 4ch / analog RGB 1ch composite input	● ²⁾	—	—	—	—
	GT15V-75V4R1	For video input (NTSC/PAL) 4ch / analog RGB 1ch composite input	—	● ³⁾	—	—	—
RGB output unit	GT16M-ROUT	For analog RGB output 1ch	● ²⁾	—	—	—	—
	GT15V-75ROUT	For analog RGB output	—	● ³⁾	—	—	—
CF card unit	GT15-CFCF	For additional CF card port (B drive) on the back of the GOT	●	●	—	—	—
CF card extension unit	GT15-CFEX-COB5SET	For additional CF card port (B drive) at the front of the control panel ¹⁾	●	●	—	—	—
Sound output unit	GT15-SOUT	For sound output	●	●	—	—	—
External input/output unit	GT15-DIOR	For external input/output devices and operation panel connection (negative common input / source type output)	●	●	—	—	—
	GT15-DIOU	For external input/output devices and operation panel connection (positive common input / sink type output)	●	●	—	—	—

1): Includes unit to be installed on the control panel, unit to be installed on the GOT, and connection cable (0.8m).

2): Excluding GT16□D+NBS

3): Only GT15S8V and GT15S7V are applicable.

Software

Product name	Model name	Contents
GT Works3 Version1	SW1DNC-GTWK3-E SW1DNC-GTWK3-EA	Single license <English version> Multiple license <English version>
License key for GT SoftGOT1000 ¹	GT15-SGTKEY-U	For USB port
Personal computer remote operation function (Ethernet) license ²	GT16-PCRAKEY	For parallel port
		1 license

¹: To use GT SoftGOT1000, a license key for GT SoftGOT1000 is necessary for each personal computer.

²: 1 license is required for 1 GOT unit.

Options

Product name	Model name	Specifications	Applicable model				
			GT16	GT15	GT11	Handy GOT	GT10
Backlight	GT16-90XLTT	For GT1695M-XTBD	●	—	—	—	—
	GT16-80SLTT	For GT1685M-STBD	●	—	—	—	—
	GT16-70SLTT	For GT1675M-STBD	●	—	—	—	—
	GT16-70VLTT	For GT1675M-VTBD	●	—	—	—	—
	GT16-70VLTN ^{NEW}	For GT1675-VNBD/GT1672-VNBD	●	—	—	—	—
	GT16-60SLTT	For GT1665M-STBD	●	—	—	—	—
	GT16-60VLTT	For GT1665M-VTBD	●	—	—	—	—
	GT16-60VLTN ^{NEW}	For GT1662-VNBD	●	—	—	—	—
	GT15-90XLTT	For GT1595-XTBD	—	●	—	—	—
	GT15-80SLTT	For GT1585V-STBD/GT1585-STBD	—	●	—	—	—
Optional function board	GT15-70SLTT	For GT1575-STBD ¹	—	●	—	—	—
	GT15-70VLTT	For GT1575V-STBD/GT1575-VTBD/GT1575-STBD ²	—	●	—	—	—
	GT15-70VLTN	For GT1575-VNBD/GT1572-VNBD	—	●	—	—	—
	GT15-60VLTT	For GT1565-VTBD	—	●	—	—	—
	GT15-60VLTN	For GT1562-VNBD	—	●	—	—	—
	GT16-MESB	For MES interface function	●	—	—	—	—
	GT15-FNB	(No expansion memory)	—	●	—	—	—
	GT15-OFNB	(No expansion memory)	—	●	—	—	—
	GT15-OFNB16M	+ 16MB expansion memory	—	●	—	—	—
	GT15-OFNB32M	+ 32MB expansion memory	—	●	—	—	—
GT10 memory loader	GT15-OFNB48M	+ 48MB expansion memory	—	●	—	—	—
	GT15-MESB48M	+ 48MB expansion memory	—	●	—	—	—
GT10 memory board	GT11-50FMB	—	—	—	● ³	● ¹⁰	—
	GT10-50FMB	For GT1030/GT1020 (for OS project data transfer) no power source required	—	—	—	—	● ⁷
	GT16-90PSCB	For GT105□/GT1104□ (for OS and project data transfer)	—	—	—	—	● ⁸
	GT16-90PSGB	Protective sheet for 15" screen	Clear, 5 sheets	●	—	—	—
	GT16-90PSCW		Anti-glare, 5 sheets	●	—	—	—
	GT16-90PSGW		Clear (frame: white), 5 sheets	●	—	—	—
	GT15-90PSCB		Anti-glare (frame: white), 5 sheets	●	—	—	—
	GT15-90PSGB	Protective sheet for 12.1" screen	Clear, 5 sheets	—	●	—	—
	GT15-90PSCW		Anti-glare, 5 sheets	—	●	—	—
	GT15-90PSGW		Clear (frame: white), 5 sheets	—	●	—	—
Protective sheet	GT16-80PSCB	Protective sheet for 10.4" screen	Anti-glare (frame: white), 5 sheets	●	—	—	—
	GT16-80PSGB		Clear, 5 sheets	●	—	—	—
	GT16-80PSCW		Anti-glare, 5 sheets	●	—	—	—
	GT16-80PSGW		Clear (frame: white), 5 sheets	●	—	—	—
	GT16-70PSCB		Anti-glare (frame: white), 5 sheets	●	—	—	—
	GT16-70PSGB	Protective sheet for 8.4" screen	Clear, 5 sheets	●	—	—	—
	GT16-70PSCW		Anti-glare, 5 sheets	●	—	—	—
	GT16-70PSGW		Clear (frame: white), 5 sheets	●	—	—	—
	GT15-70PSCB		Anti-glare (frame: white), 5 sheets	●	—	—	—
	GT15-70PSGB		Clear, 5 sheets	●	—	—	—
	GT15-70PSCW		Anti-glare, 5 sheets	●	—	—	—
	GT15-70PSGW		Clear (frame: white), 5 sheets	●	—	—	—
	GT16-60PSCB	Protective sheet for 6.5" screen (for Handy GOT)	Anti-glare (frame: white), 5 sheets	●	—	—	—
	GT16-60PSGB		Clear, 5 sheets	●	—	—	—
	GT16-60PSCW		Anti-glare, 5 sheets	●	—	—	—
	GT16-60PSGW		Clear (frame: white), 5 sheets	●	—	—	—
	GT15-60PSCB		Anti-glare (frame: white), 5 sheets	●	—	—	—
	GT15-60PSGB		Clear, 5 sheets	●	—	—	—
	GT15-60PSCW		Anti-glare, 5 sheets	●	—	—	—
	GT15-60PSGW		Clear (frame: white), 5 sheets	●	—	—	—
	GT16H-60PSC ^{DISCONTINUED}	Protective sheet for 6.5" screen (for Handy GOT)	Anti-glare (frame: white), 5 sheets	●	—	● ¹¹	—
	GT15-50PSCB	Protective sheet for 5.7" screen (for GT15)	Clear, 5 sheets	●	—	—	—
	GT15-50PSGB		Anti-glare, 5 sheets	●	—	—	—
	GT15-50PSCW		Clear (frame: white), 5 sheets	●	—	—	—
	GT15-50PSGW		Anti-glare (frame: white), 5 sheets	●	—	—	—
	GT11-50PSCB	Protective sheet for 5.7" screen (for GT11)	Clear, 5 sheets	●	—	●	—
	GT11-50PSGB		Anti-glare, 5 sheets	●	—	●	—
	GT11-50PSCW		Clear (frame: white), 5 sheets	●	—	●	—
	GT11-50PSGW		Anti-glare (frame: white), 5 sheets	●	—	●	—
	GT11H-50PSC	Protective sheet for 5.7" screen (for Handy GOT)	Clear, 5 sheets	●	—	● ¹⁰	—
	GT10-50PSCB	Protective sheet for 5.7" screen (for GT105□)	Clear, 5 sheets	—	—	—	●
	GT10-50PSGB		Anti-glare, 5 sheets	—	—	—	●
	GT10-50PSCW		Clear (frame: white), 5 sheets	—	—	—	●
	GT10-50PSGW		Anti-glare (frame: white), 5 sheets	—	—	—	●

Options

Product name	Model name	Specifications	Applicable model				
			GT16	GT15	GT11	Handy GOT	GT10
Protective sheet	GT10-40PSCB	Clear, 5 sheets	—	—	—	—	●
	GT10-40PSGB	Anti-glare, 5 sheets	—	—	—	—	●
	GT10-40PSCW	Clear (frame: white), 5 sheets	—	—	—	—	●
	GT10-40PSGW	Anti-glare (frame: white), 5 sheets	—	—	—	—	●
	GT10-30PSCB	Clear, 5 sheets	—	—	—	—	●
	GT10-30PSGB	Anti-glare, 5 sheets	—	—	—	—	●
	GT10-30PSCW	Clear (frame: white), 5 sheets	—	—	—	—	●
	GT10-30PSGW	Anti-glare (frame: white), 5 sheets	—	—	—	—	●
	GT10-20PSCB	Clear, 5 sheets	—	—	—	—	●
	GT10-20PSGB	Anti-glare, 5 sheets	—	—	—	—	●
USB protective cover	GT10-30PSGW	Clear (frame: white), 5 sheets	—	—	—	—	●
	GT10-20PSCW	Anti-glare (frame: white), 5 sheets	—	—	—	—	●
	GT10-20PSGW	Clear (frame: white), 5 sheets	—	—	—	—	●
	GT16-UCCOV	For 15"/12.1"/10.4"	●	—	—	—	—
	GT15-UCCOV	For 15"/12.1"/10.4"	●	—	—	—	—
Oil resistant cover ⁵	GT05-80PCO	Oil resistant cover for 15" screen	●	●	●	●	●
	GT05-80PCO	Oil resistant cover for 12.1" screen	●	●	●	●	●
	GT05-70PCO	Oil resistant cover for 10.4" screen	●	●	●	●	●
	GT05-60PCO	Oil resistant cover for 8.4" screen	●	●	●	●	●
	GT05-50PCO	Oil resistant cover for 5.7" screen	—	●	●	●	● ⁷⁹
	GT10-30PCO	Oil resistant cover for 4.5" screen	—	●	●	●	● ⁷⁹
	GT10-20PCO	Oil resistant cover for 3.7" screen	—	—	—	—	●
	GT16H-60ESCOV	For accidental-operation prevention of emergency stop switch	—	—	—	● ¹¹¹	● ¹⁰
	GT11H-50ESCOV	For accidental-operation prevention of emergency stop switch	—	—	—	● ¹¹¹	● ¹⁰
	GT15-50STAND	Stand for 15" type	●	●	●	—	—
Stand	GT15-70STAND	Stand for 12.1" type	●	●	●	—	—
	GT15-10STAND	Stand for 10.4"/8.4" type	●	●	●	—	—
CF card	GT05-50STAND	Stand for 5.7" type	—	●	●	—	● ⁷⁹
	GT05-MEM-L28MC	128MB flash ROM	●	●	●	●	●
	GT05-MEM-256MC	256MB flash ROM	●	●	●	●	●
	GT05-MEM-512MC	512MB flash ROM	●	●	●	●	●
	GT05-MEM-1GC	1GB flash ROM	●	●	●	●	●
	GT05-MEM-2GC	2GB flash ROM	●	●	●	●	●
	GT05-MEM-4GC	4GB flash ROM	●	—	—	● ¹¹¹	● ¹¹¹
	GT05-MEM-8GC	8GB flash ROM	●	—	—	● ¹¹¹	● ¹¹¹
	GT05-MEM-16GC	16GB flash ROM	●	—	—	● ¹¹¹	● ¹¹¹
	GT05-MEM-ADPC	CF card → memory card (TYPE II) conversion adapter	●	●	●	●	●
Memory card adapter	GT15-70ATT-98	A985GOT ⁶	GT167 ⁷	GT157 ⁷	●	—	—
	GT15-70ATT-87	Attachment for 10.4" type	—	●	—	—	—
	GT15-60ATT-97	A97 ⁸ : GOT	—	—	—	—	—
	GT15-60ATT-96	A960GOT	—	—	—	—	—
	GT15-60ATT-87	Attachment for 8.4" type	—	●	—	—	—
	GT15-60ATT-77	A870GOT-EWS A870GOT-EW A870GOT-TWS A870GOT-TW A870GOT-SB	GT166 ⁷ GT156 ⁷	●	—	—	—
	GT15-50ATT-95W	A956WGOT	GT155 ⁷ GT115 ⁷	—	●	●	—
	GT15-50ATT-85	A85 ⁹ : GOT	—	●	●	●	● ¹⁰
	GT15-BAT	Battery for backup of clock data and maintenance time notification data	●	—	—	● ¹¹¹	● ¹⁴
	GT11-50BAT	Battery for backup of clock data, alarm history and recipe data (for replacement)	—	—	●	● ¹¹¹	● ¹⁴

¹: GT Designer3 Version 8 or earlier

²: Function version C or later

³: Excluding GT115¹⁰-Q, BDA and GT115¹⁰-Q, BDA

⁴: Excluding GT1020

⁵: Check if the oil resistant cover can be used in the actual environment before use.

When using the oil resistant cover, the front USB interface and human sensor cannot be used.

⁶: GT Connection Kit (part SPZ60) manufactured by Pro-face.

⁷: Can be used only for GT1030 and GT1020.

⁸: Can be used only for GT1015¹⁰ and GT1020.

⁹: Can be used only for GT1015¹⁰.

¹⁰: Can be used only for GT11 Handy.

¹¹: Can be used only for GT16 Handy.

Manuals

Manual title	Catalog No.
GT Designer3 Version1 Screen Design Manual (Fundamentals)	SH-080866ENG
GT Designer3 Version1 Screen Design Manual (Functions) *A set of two volumes	SH-080867ENG
GOT1000 Series Connection Manual (Mitsubishi Products) for GT Works3	SH-080868ENG
GOT1000 Series Connection Manual (Non-Mitsubishi Products 1) for GT Works3	SH-080869ENG
GOT1000 Series Connection Manual (Non-Mitsubishi Products 2) for GT Works3	SH-080870ENG
GOT1000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3	SH-080871ENG
GOT1000 Series Gateway Functions Manual for GT Works3	SH-080858ENG
GOT1000 Series MES Interface Function Manual for GT Works3	SH-080859ENG
GT SoftGOT1000 Version3 Operating Manual for GT Works3	SH-080861ENG
GT Simulator3 Version3 Operating Manual for GT Works3	SH-080860ENG
GT Converter2 Version3 Operating Manual for GT Works3	SH-080862ENG
GOT1000 Series User's Manual (Extended Functions, Option Functions) for GT Works3	SH-080863ENG
GT16 User's Manual (Hardware)	SH-080928ENG
GT16 User's Manual (Basic Utility)	SH-080929ENG
GT15 User's Manual	SH-080528ENG
GT11 User's Manual	JY997D17501
GT16 Handy GOT User's Manual (Hardware + Utility, Connection) *A set of two volumes	(coming soon)
GT11 Handy GOT User's Manual (Hardware + Utility, Connection) *A set of two volumes	JY997D20101
GT10 User's Manual	JY997D24701

1 GOT

2 SOFTWARE

3 FUNCTION

4 CONNECTION

5 CONFIGURATION

6 EQUIPMENT,

SOFTWARE,

AND MANUALS

7 GLOSSARY

Cables

	Product name	Model name	Cable length	Third party products ^①	Application	Applicable model ^②				
						GT16	GT15	GT11	Handy GOT	GT10
Bus connection cable for QCPU (Q mode)	QCPU extension cable GOT-to-GOT connection cable	GT15-OC06B	0.6m	○	For connection between QCPU and GOT	●	●	●	—	—
		GT15-OC12B	1.2m		For connection between GOT and GOT	●	●	●	—	—
		GT15-OC30B	3m							
		GT15-OC50B	5m							
	Long-distance connection cable for QCPU GOT-to-GOT long-distance connection cable	GT15-QC10B	10m	○	For long-distance (13.2m or more) connection between QCPU and GOT (A9GT-CQNB required)	●	●	●	—	—
		GT15-QC150BS	15m		For long-distance connection between GOT and GOT	●	●	●	—	—
		GT15-QC200BS	20m							
		GT15-QC250BS	25m							
	Bus extension connector box	GT15-QC300BS	30m	○						
		GT15-QC350BS	35m							
		A9GT-CQNB	—		Used for QCPU long-distance (13.2m or more) bus connection	●	●	●	—	—
		GT15-C12NB	1.2m							
Bus connection cable for QnA/ACPU/motion controller CPU (A series)	Large CPU extension cable	GT15-C30NB	3m	○	For connection between QnA/ACPU/motion controller CPU (A series, extension base) and GOT	●	●	●	—	—
		GT15-C50NB	5m							
		GT15-AC06B	0.6m							
		GT15-AC12B	1.2m		For connection between QnA/ACPU/motion controller CPU (A series, extension base) and A7GT-CNB	●	●	●	—	—
	Small CPU extension cable	GT15-A30C12B-S1	1.2m	○	For connection between motion controller CPU (A series, main base) and GOT	●	●	●	—	—
		GT15-A370C25B-S1	2.5m							
		GT15-A370C12B	1.2m		For connection between motion controller CPU (A series, main base) and A7GT-CNB	●	●	●	—	—
		GT15-A370C25B	2.5m							
	Small CPU long-distance connection cable	GT15-A15C07B	0.7m	○	For connection between QnAS/AnSCPU/motion controller CPU (A series) and GOT	●	●	●	—	—
		GT15-A15C12B	1.2m							
		GT15-A15C30B	3m							
		GT15-A15C50B	5m		For connection between QnAS/AnSCPU and GOT	●	●	●	—	—
RS-422 conversion cable	GOT-to-GOT connection cable	GT15-A15C05NB	0.45m	○	For connection between QnAS/AnSCPU/motion controller CPU (A series) and A7GT-CNB	●	●	●	—	—
		GT15-A15C07NB	0.7m							
		GT15-A15C30NB	3m							
		GT15-A15C50NB	5m							
	Small CPU long-distance connection cable	GT15-C100EXXS-1	10.6m	○	For long-distance connection between QnAS/AnSCPU/motion controller CPU (A series) and GOT	●	●	●	—	—
		GT15-C200EXXS-1	20.6m							
		GT15-C300EXXS-1	30.6m		For long-distance connection between A7GT-CNB and GOT *Set of GT15-EXCNB and GT15-CDBS	●	●	●	—	—
		GT15-C70BS	0.7m							
RS-485 terminal block conversion unit	GOT-to-GOT connection cable	GT15-C12BS	1.2m	○	For connection between GOT and GOT	●	●	●	—	—
		GT15-C30BS	3m							
		GT15-C50BS	5m							
		GT15-C100BS	10m							
	GOT-to-GOT long-distance connection cable	GT15-C200BS	20m	○	For connection between GOT and GOT	●	●	●	—	—
		GT15-C300BS	30m							
		A0J2HCPU connection cable	GT15-J2C10B	1m	For connection between power supply unit (A0J2-PW) for A0J2HCPU and GOT	●	●	●	—	—
		GT15-GT-CNE	—	Used for QnA/ACPU long-distance bus connection	●	●	●	—	—	
RS-422 cable	Computer link connection cable	GT15-EXCNB	0.5m	○	Usable as GT15-CDEXS-1 in combination with GT15-CDBS	●	●	●	—	—
		GT15-QFC	—		Ferrite cores for replacing existing GOT-A900 bus cable with bus cable for GOT1000	●	●	●	—	—
		GT15-APC	—							
		GT16-C02R4-9S	0.2m	○	For connection between RS-422/485 (connector) of GT16 and RS-422 cable (D-sub 9 pins)	●	—	—	—	—
	RS-485 terminal block conversion unit	FA-LTBGTR4CBL05	0.5m		RS-485 terminal block conversion unit	●	—	—	—	—
		FA-LTBGTR4CBL10	1m		*With cable for connection between RS-422/485 (connector) of GT16 and RS-485 terminal block conversion unit	●	—	—	—	—
		FA-LTBGTR4CBL20	2m							
	QnA/ACPU direct connection cable	GT10-C30R4-25P	3m	—	For connection between QnA/ACPU/motion controller CPU (A series) and FXCPU (D-sub 25-pin connector) and GOT	● ^⑥	●	●	● ^⑩	● ^④
		GT10-C100R4-25P	10m		For connection between QnA/ACPU (D-sub 25-pin connector) and GOT	—	—	—	—	—
		GT10-C200R4-25P	20m		For connection between serial communication unit and GOT	—	—	—	—	—
		GT10-C300R4-25P	30m		For connection between serial communication unit and GOT	—	—	—	—	● ¹⁵
RS-422 cable	Computer link connection cable	GT09-C20R4-6C	3m	○	For connection between serial communication unit and GOT	● ¹⁶	●	●	● ³	● ⁴
		GT09-C100R4-6C	10m		For connection between computer link unit and GOT	—	—	—	—	—
		GT09-C200R4-6C	20m							
		GT09-C300R4-6C	30m							
	FXCPU direct connection cable	G101-C10R4-8P	1m	—	For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	● ¹⁶	●	●	● ¹³	● ⁴
		G101-C20R4-8P	3m		For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	—
		G101-C30R4-8P	10m		For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	—
		G101-C200R4-8P	20m		For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	● ¹⁵
RS-485 terminal block conversion unit	FX communication function extension board connection cable	G101-C30R4-8P	30m		For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	● ¹⁵
		G101-C10R4-8PL	1m	—	For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	—
		G101-C20R4-8PL	3m		For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	● ¹⁵
		G101-C30R4-8PL	10m		For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	● ¹⁵
		G101-C200R4-8PL	20m		For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	—	—	—	—	● ¹⁵
RS-232 cable	Q/LCPU direct connection cable	G101-C10R4-8PC	30m	—	For connection between Q/LCPU and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin)	●	●	●	—	● ¹⁴
		G101-C30R2-6P	3m		For connection between personal computer (screen design software) (D-sub 9-pin, female) and GOT (MINI-DIN 6-pin, male)	—	—	—	●	● ¹⁵
		G101-C30R2-6P	3m		For connection between Q/LCPU and GOT and between GOTs.	—	—	—	—	● ¹⁵
		G11H-C30R2-6P	3m		For connector conversion box between Q/LCPU and Handy GOT	—	—	—	● ¹³	—

Cables

	Product name	Model name	Cable length	Third party products ^{*1}	Application	Applicable model ^{*2}				
						GT16	GT15	GT11	Handy GOT	GT10
RS-232 cable	FX communication function extension board connection cable, FX communication function adapter connection cable, Data transfer cable	GT01-C30R2-9S	3m	—	For connection between FXCPU communication function extension board (D-sub 9-pin connector) and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin)	●	●	●	●	●
	FX communication function adapter connection cable	GT01-C30R2-25P	3m	—	For connection between FXCPU communication function adapter (D-sub 9-pin connector) and GOT	●	●	●	●	●
	Computer link connection cable	GT09-C30R2-25P	3m	○	For connection between personal computer (screen design software) (D-sub 9-pin, female) and GOT (D-sub 9-pin, female)	●	●	●	●	●
Connector conversion box for Handy GOT	GT16H-CNB-42S (New) [*]	—	—	—	For connection between FXCPU communication special adapter (D-sub 25-pin connector) and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin)	—	—	—	●	●
	GT11H-CNB-37S	—	—	—	For connection between FXCPU communication special adapter (D-sub 25-pin connector) and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin)	—	—	—	●	●
External connection cable	FA device, power supply and operation switch connection cable	GT16H-C30-42P (New) [*]	3m	—	For connection between connector conversion box and Handy GOT	—	—	—	●	—
		GT16H-C60-42P (New) [*]	6m	—	—	—	—	●	—	—
		GT16H-C100-42P (New) [*]	10m	—	—	—	—	●	—	—
		GT16H-C30-32P (New) [*]	3m	—	For connection between CC-Link interface unit and Handy GOT	—	—	—	●	—
		GT16H-C80-32P (New) [*]	8m	—	—	—	—	●	—	—
		GT16H-C130-32P (New) [*]	13m	—	—	—	—	●	—	—
		GT11H-C30-37P	3m	—	For connection between FA device connection relay cable and GOT	—	—	—	●	—
		GT11H-C60-37P	6m	—	—	—	—	●	—	—
		GT11H-C100-37P	10m	—	—	—	—	●	—	—
FA device connection relay cable	GT11H-C30	3m	—	—	For connection between FA device, power supply and operation switches and GOT	—	—	—	●	—
		GT11H-C60	6m	—	—	—	—	●	—	—
		GT11H-C100	10m	—	—	—	—	●	—	—
RS-422, power supply and operation switch connection cable	GT11H-C15R4-8P	1.5m	—	—	For connection between FXCPU and GOT	—	—	—	●	—
		GT11H-C15R4-25P	1.5m	—	For connection between power supply and operation switches and GOT	—	—	—	●	—
RS-232, power supply and operation switch connection cable	GT11H-C15R2-6P	1.5m	—	—	For connection between QCPU and GOT	—	—	—	●	—
		GT11H-C20H-6PT9P	0.2m	—	For connection between power supply and operation switches and GOT	—	—	—	●	—
Barcode reader connection cable	GT11H-C20H-6PT9P	0.2m	—	—	For connection between barcode reader (D-sub 9-pin, female) and GOT (MINI-DIN 6-pin, female) RS-232	—	—	—	●	—
	GT15-C03HTB	0.3m	○	—	For connection between GOT1000 (external I/O unit) and GOT-4000 external I/O interface unit connection cable (AGOT-C57KA/GOT-C30TB user-fabricated cable)	●	●	—	—	—
Analog RGB cable	GT15-C50VG	5m	○	—	For connection between external monitor, personal computer and vision sensor and GOT	●	●	—	—	—
	GT10-RS2TUSB-5S	—	—	—	For connection between personal computer (USB) and GOT (RS-232) (Adapter and personal computer are connected with GT09-C30USB-5P)	—	—	—	●	—
USB cable	Data transfer cable	GT09-C30USB-5P	3m	○	For connection between personal computer (USB) and GOT (USB mini-B)	●	●	●	●	●
		GT10-C10EUXUSB-5S (New) [*]	1m	—	For connection between printer and GOT (printer unit)	●	●	—	—	●
Extension USB waterproof cable						GT10-C10EUXUSB-5S (New) [*]	1m	—	For extending the USB port of GOT to the control panel	—

¹: FA-LTR series cables are developed by Mitsubishi Electric Engineering Company Limited and sold through your local sales office.

²: The applicable connection configuration and cable vary depending on the GOT main unit. For more details, see ⁴. CONNECTION CONFIGURATION (page 95)* and the GOT1000 Series Connection Manual.

³: Can be used when used together with the Handy GOT connector conversion box.

⁴: Can be used only for GT105[®]/GT104[®].

⁵: Can be used only for GT103 and GT1020.

⁶: To connect with RS-422/485 interface of GT16 main unit, an RS-422 conversion cable (GT16-C02R4-9S) is required.

⁷: Can be used only for GT16 Handy.

⁸: Can be used only for GT11 Handy.

Cables for third party FA devices

Product name	Model name	Cable length	Third party products ¹⁾	GOT connection destination	Applicable model ²⁾			
					GT16	GT15	GT11	Handy GOT
RS-232 cable	Cable for OMRON PLC	GT09-C30R20101-9P	3m	PLC CPU: CPM2A/CQM1(H)/CS1-CJ1C/J2H/CP1E/C200HX/C200HG/C200HE/CV500/CV1000/CV2000/CVM1 RS-232C adapter: CPM1-CIF01/CPM2C-CIF01-V1				
				Cable: CPM2C-N11/QCM1-CIF02				
				Serial communication unit/board: COM1-SCB41/C200HW-COM02/C200HW-COM05/C200HW-COM06/CS1W-SCB21(-V1)/CS1W-SCB41(-V1)/CS1W-SCU21(-V1)/CJ1W-SCU21(-V1)/CJ1W-SCU41(-V1)/CP1W-CIE01				
				Connection cable: COM1-CIF01				
				Base mount type host link unit: C500-LK201-V1/C200H-LK201-V1				
				PLC CPU: KV-700/1000/3000				
				Multi-communication unit: KV-L20KV-L20R/KV-L20V (port 1)				
				Multi-communication unit: KV-L20KV-L20R/KV-L20V (port 2)				
				PLC CPU: JW-22CU/70CUH/100CUH/100CU				
				PLC CPU: JW-32CU/33CUH/Z-512J				
				RS-232/RS-422 converter: TXU-2051				
				Digital indicating controller: FCR-100/FCD-100/FCR-23A/PC-900/FIR series				
				PLC CPU: T2E				
				PLC CPU: T2N				
				PLC CPU: Large-size H series/H200 to H252 series/H series board type/EH-150 series				
				Intelligent serial port module: COMM-H/COMM-2H				
				PLC CPU: H-4010H/252CE/H-150 series				
				Communication module: LOE560LQE060LQE160				
				RS-232C interface card: NV1L-R52				
				RS-232C/485 interface capsule: FFK120A-C10				
				General interface module: NCL-RS2/FRU120B				
				RS-422 → 232 conversion adapter: AFP-P650				
				PLC CPU: FP2/P2SH/FP1Q/S/P10SH/FP-M				
				Computer communication unit: AFP2462/AFP3462/AFP5462				
				PLC CPU: FP1-C24C/C40C				
				PLC CPU: FP1-C16CT/C32CT/FPOR				
				PLC CPU: GL120/GL130/MP-920/MP-930/CP-9200(H)/PROGIC-8 (port 1)				
				MEMOBUS module: JAMSC-IP60/JAMSC-F61				
				Communication module: 217IF/CP-217IF (when connected to CN1) 217IF-01218P-01				
				PLC CPU: PROGIC-8 (port 2)				
				PLC CPU: CP-9300MS				
				PLC CPU: MP-940				
				MEMOBUS module: CP-217IF (when connected to CN2)				
				Yokogawa Electric personal computer module: LC01-0N/LC02-0N				
				CPU port/D-sub 9-pin conversion cable: KM10-0C/KM10-0S				
				Personal computer link module: F3LC01-1NF/3LC11-1N/F3LC11-1F/F3LC12-1F				
				PLC CPU: NFCP1000/NFJT100				
				Converter: ML2-□				
				PLC CPU: SL500 series				
				HMI adapter				

1) : The applicable connection configuration is provided by the third party system & service company.

2) : The applicable connection configuration and cable vary depending on the GOT main unit. For more details, see "4. CONNECTION CONFIGURATION (page 95)" and the GOT1000 Series Connection Manual.

3) : The RS-232 cables less than 10m and the RS-232 cable less than 3m can be used when the connector conversion box for the Handy GOT is used.

4) : Can be used only for GT105¹⁾ and GT104²⁾.

Cables for third party FA devices

Product name	Model name	Cable length	Third party products	GOT connection destination	Applicable model ^{*2}				
					GT16	GT15	GT11	Handy GOT	GT10
Cable for OMRON PLC	GT09-C30R40101-9P	3m		PLC CPU: CV500/CV1000/CV2000/CV1M Serial communication unit: CJ1W-SCU141 Serial communication board: COM1-SCB41/CS1W-SCB41 Communication board: C200HW-COM03/COM06					
	GT09-C100R40101-9P	10m							
	GT09-C200R40101-9P	20m							
	GT09-C300R40101-9P	30m							
	GT09-C30R40102-9P	3m							
	GT09-C100R40102-9P	10m							
	GT09-C200R40102-9P	20m							
	GT09-C300R40102-9P	30m							
	GT09-C30R40103-5T	3m							
	GT09-C100R40103-5T	10m							
Cable for KEYENCE PLC	GT09-C200R40103-5T	20m							
	GT09-C300R40103-5T	30m							
	GT09-C100R40104-5T	3m							
	GT09-C200R40104-5T	10m							
Cable for Sharp Manufacturing Systems PLC	GT09-C30R40601-15P	3m							
	GT09-C100R40601-15P	10m							
	GT09-C200R40601-15P	20m							
	GT09-C300R40601-15P	30m							
	GT09-C30R40602-15P	3m							
	GT09-C100R40602-15P	10m							
	GT09-C200R40602-15P	20m							
	GT09-C300R40602-15P	30m							
	GT09-C30R40603-6T	3m							
	GT09-C100R40603-6T	10m							
Cable for JTEKT PLC	GT09-C200R40603-6T	20m							
	GT09-C300R40603-6T	30m							
	GT09-C30R41201-6C	3m							
	GT09-C200R41201-6C	10m							
Cable for TOSHIBA PLC	GT09-C30R41201-6C	20m							
	GT09-C300R41201-6C	30m							
	GT09-C100R40501-15P	3m							
	GT09-C100R40501-15P	10m							
	GT09-C200R40501-15P	20m							
	GT09-C300R40501-15P	30m							
	GT09-C30R40502-6C	3m							
	GT09-C100R40502-6C	10m							
	GT09-C200R40502-6C	20m							
	GT09-C300R40502-6C	30m							
Cable for Hitachi Industrial Equipment Systems PLC	GT09-C30R40501-15P	3m							
	GT09-C100R40501-15P	10m							
	GT09-C200R40501-15P	20m							
	GT09-C300R40501-15P	30m							
Cable for Hitachi PLC	GT09-C30R41301-9S	3m							
	GT09-C100R41301-9S	10m							
	GT09-C200R41301-9S	20m							
	GT09-C300R41301-9S	30m							
Cable for Fuji Electric FA Components & Systems PLC	GT09-C30R41001-6T	3m							
	GT09-C100R41001-6T	10m							
	GT09-C200R41001-6T	20m							
	GT09-C300R41001-6T	30m							
Cable for Yaskawa Electric PLC	GT09-C30R40201-9P	3m							
	GT09-C100R40201-9P	10m							
	GT09-C200R40201-9P	20m							
	GT09-C300R40201-9P	30m							
	GT09-C30R40202-14P	3m							
	GT09-C100R40202-14P	10m							
	GT09-C200R40202-14P	20m							
	GT09-C300R40202-14P	30m							
	GT09-C30R40302-6T	3m							
	GT09-C100R40302-6T	10m							
Cable for Yokogawa Electric	GT09-C200R40302-6T	20m							
	GT09-C300R40302-6T	30m							
	GT09-C30R40303-6T	3m							
	GT09-C100R40303-6T	10m							
	GT09-C200R40303-6T	20m							
	GT09-C300R40303-6T	30m							
	GT09-C30R40304-6T	3m							
	GT09-C100R40304-6T	10m							
Temperature controller	GT09-C200R40304-6T	20m							
	GT09-C300R40304-6T	30m							
	GT09-C30R40305-6T	3m							
	GT09-C100R40305-6T	10m							

¹¹: Items listed above are developed by Mitsubishi Electric System & Service Co., LTD., and sold through your local sales office.

¹²: The applicable connection configuration and cable vary depending on the GOT main unit. For more details, see "4. CONNECTION CONFIGURATION (page 95)" and the GOT1000 Series Connection Manual.

¹³: The RS-422 cables less than 10m and the RS-232 cable less than 3m can be used when the connector conversion box for the Handy GOT is used.

¹⁴: Can be used only for GT105□ and GT104□.

¹⁵: To connect with RS-422/485 interface of GT16 main unit, an RS-422 conversion cable (GT16-C02R4-9S) is necessary.

MEMO

7. GLOSSARY

This chapter describes glossaries related to the GOT.

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7. GLOSSARY

Item	Description
CC-Link connection	Connection to the CC-Link network system CC-Link (Control & Communication Link) is a high-performance FA field network. With CC-Link, a large quantity of ON/OFF information as bit data and numerical information as word data can be sent at 10Mbps of the highest communication speed in the industry.
CC-Link IE controller network connection	Connection to the CC-Link IE controller network system CC-Link IE controller network is a network that realizes a communication speed at 1 Gbps and a maximum 256 Kbyte of the network shared memory.
CF card	Abbreviation for CompactFlash Card CompactFlash is the memory card standard suggested by SanDisk Corporation. A CF card consists of the flash memory that data are not deleted without energization and the control circuit for the external I/O.
Direct CPU connection	The GOT can communicate with a programmable controller and each module with connecting the GOT to the interface of the programmable controller CPU module.
Document Converter	Software for GOT1000 series Software for creating data for the document display function of GT Designer2
Ethernet connection	Connection with the standard network communication method (Ethernet) with personal computers and workstations
GOT internal devices	Devices used in the GOT The GOT internal devices include word devices for numerical information and bit devices for ON/OFF information.
GOT multi-drop connection	Configuration for connecting multiple GOTs to one programmable controller in the serial connection.
GT Converter2	Software for converting the project data created with the GOT800 series drawing software and with the screen editor software manufactured by Digital Electronics Corporation into data applicable to GT Designer2
GT Designer2	Software for creating the screen for GOT1000 series and GOT900 series
GT Simulator2	Software for simulating operations of the GOT-A900 series and GOT1000 series on a personal computer with connecting the GOT to GX Simulator and a programmable controller CPU
GT SoftGOT1000	Software for using a personal computer as the GOT1000 series
GT SoftGOT2	Software for using a personal computer as the GOT-A900 series
MELSECNET/10 connection	Connection to one of the MELSEC (name for the networks of Mitsubishi Electric Corporation) network systems The high-speed communication of 10 Mbps is available.
MELSECNET/H connection	Connection to the control network system (MELSECNET/H) among manufacturing equipment Data directly related to operations of mechanical equipment can be communicated among control equipment in real time with the high-speed communication and large-capacity link devices.
MES DB Connection Service	MES is an abbreviation for Manufacturing Execution Systems. The system controls and monitors the status of factories in real time for optimizing production activities. DB Connection Service is software. The MES interface function for the GOT can be used with installing the software on the server computer.
Programmable controller to programmable controller network	System for the data communication In the MELSECNET/10 network system, multiple programmable controllers can be connected for the data communication.
STN	STN is an abbreviation for Super Twisted Nematic. The 256-color, monochrome with 16 shades of gray (white/black), and monochrome (white/black) displays are available for GOT1000 series.
TFT	TFT is an abbreviation for Thin Film Transistor. The 256-color and 65536-color displays are available for GOT1000 series.
USB memory	Memory that is available when it is connected to the USB interface.
Intelligent device station	One of the CC-Link system stations The cyclic transmission and transient transmission are available. The GOT connected to CC-Link corresponds to an intelligent device station.

(Continued to next page)

Item	Description
Window screen	Screen displayed on the base screen A created window screen is displayed as an overlap window, a superimpose window, a key window, or a dialog window.
Overlap window	Window that pops up on the base screen The window can be manually moved or closed. Up to two windows can be simultaneously displayed.
Object	For GOT1000 series, the GOT functions are enabled with setting figures, including switches, lamps, and display panes for the numeric display, and with assigning devices (bit and word) and operation functions to the figures on GT Designer2. Object is a generic term for the targets to be set.
Option OS	OS to be installed on the GOT for using the option functions For using the option functions, an option function board is separately required.
Option units	Extension units to be installed on the extension unit interfaces of the GOT excluding the communication units
Extended function OS	OS to be installed on the GOT for using the extended functions
Extension unit	Generic term for the option units and communication units
Screen switching	Function for switching between base screens and window screens of the GOT The screen switching is enabled with screen switching devices (word devices).
Control station	One of the MELSECNET/10 (programmable controller to programmable controller network) stations The control station controls the whole network. Only one control station is required in a network.
Key window	Window that pops up on the base screen for input operations, including the numerical input The key window is divided into two types. One is preinstalled in the GOT, and the other is created by the user.
Standard monitor OS	OS to be installed on the GOT for starting the GOT
Graphic Operation Terminal	Term for MITSUBISHI human machine interface Graphic Operation Terminal is abbreviated to GOT.
Computer link connection	The GOT can communicate with a programmable controller and each module via a computer link module connected to a programmable controller.
Comment	Character string registered by the user on GT Designer2 Comments can be displayed with the multiple object functions when the comments are registered as the basic comment or the comment group in advance.
Context menu	Menu displaying a list of shortcuts A list of shortcuts that are available for the item currently selected is displayed. When using GT Designer2, right-click the editor screen to display it.
System monitor	Function of the GOT that devices of a programmable controller CPU and the buffer memory of an intelligent function module can be monitored or tested
Serial communication module	Module that reads from or writes to programmable controller devices or that realizes the function with connecting a programmable controller and computer (GOT or personal computer) using RS-232 or RS-422 lines for serial communication
Serial communication	Communication method where data is sent or received one bit by one with a signal line
Superimpose window	Window superimposed on the base screen When a superimpose window is switched, a part of the base screen can be changed. Up to two windows can be simultaneously displayed.
Extension cable	Cable for connecting the extension base unit (main base unit) and the GOT for the bus connection between programmable controller and the GOT
Dialog window	Window displayed on the top of all screens The window can be used to indicate an error and warning for the system. The window can also be used instead of system messages displayed on the GOT.
Communication driver	OS to be installed on the GOT for communicating with controllers, including a programmable controller CPU The communication driver dedicated to each connection type (bus connection, direct CPU connection, and others) is required.

(Continued to next page)

Item	Description
Communication unit	Extension unit to be installed on the extension interfaces of the GOT for communicating with controllers, including a programmable controller CPU
Device	Generic term for the memories equipped in the programmable controller CPU The device is for storing data or ON/OFF signal used for sequence programs.
Coaxial cable	One of the electrical cables The cable is covered with an insulator and the covered cable is shielded for effectively transmitting high-frequency signals.
Coaxial bus system	Network configuration using the MELSECNET/10 coaxial cable connection The system is called "Coaxial bus system" since the bus type connection is used.
Bus connection	A bus is a transmission path that enables a programmable controller CPU to communicate with the other modules. The bus connection is that the GOT is connected to the bus.
Fiber-optic cable	Cable for transmitting optical signals The programmable controller is activated by an electrical signal. The electrical signal of ON/OFF is converted to the optical signal to send the optical signal via a fiber-optic cable. When receiving the signal, the signal is converted to the electrical signal.
Optical loop system	Network configuration using the MELSECNET/10 fiber-optic cable connection The system is called "Optical loop system" since the loop (ring) type connection is used.
Bit device	One of the devices of the programmable controller The device that transmits information by one bit
Parts	Figures registered as parts Parts are used for the parts display and parts movement. Figures that can be registered as parts include character and image data.
Flash memory	Memory that stored data are not deleted without energization
Project (file)	A group of all the information to be displayed on a GOT A project consists of the screen information, parts information, and others. The information (project) is created as one file.
Base screen	The basic screen for the GOT screen display
Base unit	Module where a programmable controller CPU module, power supply module, I/O module, or intelligent function module is installed
Master station	A programmable controller CPU station where a master module controlling the CC-Link system and data link is installed
Memory card	Screen data can be stored in a memory card with a GOT, and the data can be used with the other GOTs. The memory card includes the CF card.
Motion controller CPU	A CPU module that enables the positioning control of multiple axes easier and with high-speed and high-accuracy The processing load is distributed by assigning the complicated servo control to the motion CPU module and other machine and information controls to the programmable controller CPU module.
List editor	Function for changing a sequence program in the list program format (instruction word) with the GOT Programs can be edited on the scene immediately.
Remote I/O station	One of the remote I/O network system stations The remote I/O station is a station at the remote side that sends and receives signals with controllers at the machine side by the command from the master station in a remote place.
Report screen	Screen for creating formats to be output with the report function
Local station	One of the CC-Link system stations The local station is a programmable controller CPU station with a local module is installed.
Word device	One of the devices of the programmable controller The device that transmits information by 16 bits (word). The GOT can treat the word device with 16 bits or 32 bits.

WARRANTY

Please confirm the following product warranty details before using this product.

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.

■ 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.

■ Gratis Warranty Range

(1) 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.

(2) The range shall be limited to normal use within the usage state, usage methods, usage environment, etc. which follow the conditions, precautions, etc. given in the instruction manual, user's manual, caution labels on the product, etc.

(3) Even within the gratis warranty term, repairs shall be charged for in the following cases.

① Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.

② Failure caused by unapproved modifications, etc., to the product by the user.

③ 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.

④ Failure that could have been avoided if consumable parts designated in the user's manual etc. had been correctly serviced or replaced.

⑤ Replacing consumable parts such as the battery, backlight and fuses.

⑥ 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.

⑦ Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.

⑧ Any other failure found not to be the responsibility of Mitsubishi or that admitted not to be so by the user.

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) Product supply (including repair parts) is not available after production is discontinued.

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.

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 damages caused by any cause found not to be the responsibility of Mitsubishi, loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products, special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products, replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

Changes in product specifications

The specifications given in the catalogs, manuals or technical documents are subject to change without prior notice.

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 purposes shall be excluded from the graphic operation terminal applications.

In addition, applications in which human life or property that could be greatly affected, such as in aircraft, medical applications, incineration and fuel devices, manned transportation equipment for recreation and amusement, and safety devices, shall also be excluded from the graphic operation terminal range of applications.

However, in certain cases, some applications may be possible, providing the user consults the local Mitsubishi representative outlining the special requirements of the project, and providing that all parties concerned agree to the special circumstances, solely at our discretion.

In some of these cases, 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.

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Mitsubishi Graphic Operation Terminal

Precautions for Choosing the Products

This catalog explains the typical features and functions of the GOT1000 series HMI and does not provide restrictions and other information on usage and module combinations. When using the products, always read the user's manuals of the products. Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; machine damage or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

For safe use

- To use the products given in this catalog properly, always read the related manuals before starting to use them.
- The products within this catalog have been manufactured as general-purpose parts for general industries and have not been designed or manufactured to be incorporated into any devices or systems used in purpose related to human life.
- Before using any product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi.
- The products within this catalog have been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

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