Changes for the Better

MITSUBISHI ELECTRIC

Mitsubishi Graphic Operation Terminal

GRAPHIC OPERATION TERMINAL

GOT1000

December 2008 GOT1000 General Catalog

Save Time

FOR PROGRAMLESS OPERATION
FOR REDUCTION OF DOWNTIME
GOT1000

Mitsubishi Electric Corporation Nagoya Works and Himeji Works are factories certified for ISO14001 (standards for environmental management systems) and ISO9001 (standards for quality assurance management systems).

CC-Link IE

MELSOFT iQ Platform

ISO 14001 JACO EC97J1113 — UKAS ENVIRONMENTAL MANAGEMENT 051

ISO 14001 JACO EC97J1234 — UKAS ENVIRONMENTAL MANAGEMENT 051

ISO 9001 BUREAU VERITAS Certification — UKAS QUALITY MANAGEMENT 008

The GOT1000 series saves time on the manufacturing front.

With new products coming and going very quickly in rapidly changing markets, "time" is the key to competitiveness and success. This is why the GOT1000 sticks to saving time.
How about starting up equipment quickly without even bothering with programming? Or debugging and troubleshooting at worksites to reduce downtime?
To make it happen, the GOT1000 offers cutting-edge solutions, leaving conventional HMIs far behind.

PROGRAMLESS OPERATION

PROGRAMLESS OPERATION

Linking up with MELSEC process control

Effectively creates process control screens without programming, enabling process control systems to start up quickly.

PROGRAMLESS OPERATION

MES interface function

Simply and conveniently enables "programless" connection between worksites and information systems. Easily adds or alters system from the user side.

PROGRAMLESS OPERATION

Compatible with iQ Platform

Links GOTs with engineering environment, controllers, and networks without programming.

REDUCTION OF DOWNTIME

REDUCTION OF DOWNTIME

Backup/restoration function

Backs up programs and data automatically, enabling efficient maintenance work.

REDUCTION OF DOWNTIME

Document display/ motion images

Enables viewing of equipment manuals at a worksite in case of trouble. Use of motion images makes restoration efficient.

REDUCTION OF DOWNTIME

Monitor functions

<Ladder monitor, SFC monitor, etc.>

Equipped with standard features to set and monitor Mitsubishi Electric's FA equipment. Combined with transparent function makes adjustment and debugging efficient.

The GOT lets the manufacturing front line evolve.

GRAPHIC OPERATION TERMINAL
GOT1000

NEW

The cutting-edge GT16 epitomizes an "all-in-one" HMI. Coming on the center stage with a dignified full flat face.

GT16

GOT1000 GRAPHIC OPERATION TERMINAL

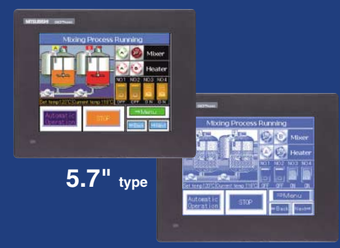
15" type

12.1" type

With cost performance second to none. The GT10 offers 5.7" type GT105□.

GT10

GOT1000 GRAPHIC OPERATION TERMINAL



5.7" type

The GOT expands its lineup in all four models to meet the demands of the manufacturing front.

LINE-UP

GRAPHIC OPERATION TERMINAL
GOT1000
GT16 model/GT15 model/GT11 model/GT10 model

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

GT16

GOT1000 GRAPHIC OPERATION TERMINAL

Multimedia | Video RGB | Network | Bus | Serial

15" type

NEW

XGA TFT(High-brightness, wide viewing angle)
GT1695M-XTBA AC type **GT1695M-XTBD** DC type
Resolution : 1024 × 768 Display colors : 65,536 colors
Multimedia, video/RGB model

12.1" type

NEW

SVGA TFT(High-brightness, wide viewing angle)
GT1685M-STBA AC type **GT1685M-STBD** DC type
Resolution : 800 × 600 Display colors : 65,536 colors
Multimedia, video/RGB model

10.4" type

Coming in Spring 2009

SVGA TFT(High-brightness, wide viewing angle)
GT1675M-STBA AC type **GT1675M-STBD** DC type
Resolution : 800 × 600 Display colors : 65,536 colors
Multimedia, video/RGB model

Coming in Spring 2009

VGA TFT(High-brightness, wide viewing angle)
GT1675M-VTBA AC type **GT1675M-VTBD** DC type
Resolution : 640 × 480 Display colors : 65,536 colors
Multimedia, video/RGB model

8.4" type

Coming in Spring 2009

SVGA TFT(High-brightness, wide viewing angle)
GT1665M-STBA AC type **GT1665M-STBD** DC type
Resolution : 800 × 600 Display colors : 65,536 colors
Multimedia, video/RGB model

Coming in Spring 2009

VGA TFT(High-brightness, wide viewing angle)
GT1665M-VTBA AC type **GT1665M-VTBD** DC type
Resolution : 640 × 480 Display colors : 65,536 colors
Multimedia, video/RGB model

Wide range of uses from network to stand alone

GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Multimedia | Video RGB | Network | Bus | Serial

15" type

XGA TFT(High-brightness, wide viewing angle)
GT1595-XTBA AC type **GT1595-XTBD** DC type
Resolution : 1024 × 768 Display colors : 65,536 colors

12.1" type

SVGA TFT(High-brightness, wide viewing angle)
GT1585V-STBA AC type **GT1585V-STBD** DC type
Resolution : 800 × 600 Display colors : 65,536 colors
Video/RGB model

SVGA TFT(High-brightness, wide viewing angle)
GT1585-STBA AC type **GT1585-STBD** DC type
Resolution : 800 × 600 Display colors : 65,536 colors

10.4" type

SVGA TFT(High-brightness, wide viewing angle)
GT1575V-STBA AC type **GT1575V-STBD** DC type
Resolution : 800 × 600 Display colors : 65,536 colors
Video/RGB model

SVGA TFT(High-brightness, wide viewing angle)
GT1575-STBA AC type **GT1575-STBD** DC type
Resolution : 800 × 600 Display colors : 65,536 colors

VGA TFT (High-brightness, wide viewing angle)
GT1575-VTBA AC type
GT1575-VTBD DC type
Resolution : 640 × 480 Display colors : 65,536 colors

VGA TFT
GT1575-VNBA AC type **GT1575-VNBD** DC type
Resolution : 640 × 480 Display colors : 256 colors

VGA TFT
GT1572-VNBA AC type **GT1572-VNBD** DC type
Resolution : 640 × 480 Display colors : 16 colors

8.4" type

VGA TFT(High-brightness, wide viewing angle)
GT1565-VTBA AC type **GT1565-VTBD** DC type
Resolution : 640 × 480 Display colors : 65,536 colors

VGA TFT
GT1562-VNBA AC type **GT1562-VNBD** DC type
Resolution : 640 × 480 Display colors : 16 colors

5.7" type

VGA TFT(High-brightness, wide viewing angle)
GT1555-VTBD DC type
Resolution : 640 × 480 Display colors : 65,536 colors

QVGA TFT(High-brightness, wide viewing angle)
GT1555-QTBD DC type
Resolution : 320 × 240 Display colors : 65,536 colors

QVGA STN
GT1555-QSBD DC type
Resolution : 320 × 240 Display colors : 4,096 colors

QVGA STN
GT1550-QLBD DC type
Resolution : 320 × 240 Display colors : 16 gray scales

Enhanced with basic functions for stand alone application

GT11

GOT1000 GRAPHIC OPERATION TERMINAL

Multimedia | Video RGB | Network | Bus | Serial

5.7" type

QVGA TFT
GT1155-QTBD DC type
GT1155-QTBDQ DC type Q bus connection
GT1155-QTBDA DC type A bus connection
Resolution : 320 × 240 Display colors : 256 colors

QVGA STN
GT1155-QSBD DC type
GT1155-QSBDQ DC type Q bus connection
GT1155-QSBDA DC type A bus connection
Resolution : 320 × 240 Display colors : 256 colors

QVGA STN
GT1150-QLBD DC type
GT1150-QLBDQ DC type Q bus connection
GT1150-QLBDA DC type A bus connection
Resolution : 320 × 240 Display colors : 16 gray scales

QVGA Handy GOT/STN
GT1155HS-QSBD DC type
Resolution : 320 × 240 Display colors : 256 colors

QVGA Handy GOT/STN
GT1150HS-QLBD DC type
Resolution : 320 × 240 Display colors : 16 gray scales

Including all the basic functions required for a HMI display

GT10

GOT1000 GRAPHIC OPERATION TERMINAL

Multimedia | Video RGB | Network | Bus | Serial

5.7" type

NEW

QVGA STN
GT1055-QSBD 24VDC type
Resolution : 320 × 240
Display colors : 256 colors

NEW

QVGA STN
GT1050-QBBD 24VDC type
Resolution : 320 × 240
Display colors : Monochrome (blue/white) 16 gray scales

4.7" type

QVGA STN Coming in Winter 2008
GT1045-QSBD 24VDC type
Resolution : 320 × 240
Display colors : 256 colors

QVGA STN Coming in Winter 2008
GT1040-QBBD 24VDC type
Resolution : 320 × 240
Display colors : Monochrome (blue/white) 16 gray scales

4.5" type

NEW

STN

GT1030-LBD	Black	24VDC type	RS-422 connection
GT1030-LBD2	Black	24VDC type	RS-232 connection
GT1030-LWD	White	24VDC type	RS-422 connection
GT1030-LWD2	White	24VDC type	RS-232 connection

Resolution : 288 × 96
Display colors : Monochrome (black/white) (Tricolor LED (green/orange/red))

NEW

STN

GT1030-LBDW	Black	24VDC type	RS-422 connection
GT1030-LBDW2	Black	24VDC type	RS-232 connection
GT1030-LWDW	White	24VDC type	RS-422 connection
GT1030-LWDW2	White	24VDC type	RS-232 connection

Resolution : 288 × 96
Display colors : Monochrome (black/white) (Tricolor LED (white/pink/red))

3.7" type

NEW

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 : 160 × 64
Display colors : Monochrome (black/white) (Tricolor LED (green/orange/red))

NEW

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 : 160 × 64
Display colors : Monochrome (black/white) (Tricolor LED (white/pink/red))

※ : For the detailed functions of the GT10 model, see pages 52 - 56.

NEW model

GOT1000 GRAPHIC OPERATION TERMINAL

GT16 NEW

The GT1000 now goes even further. The new all-in-one model is packed with all the solutions to meet the needs of customers.

Human sensor

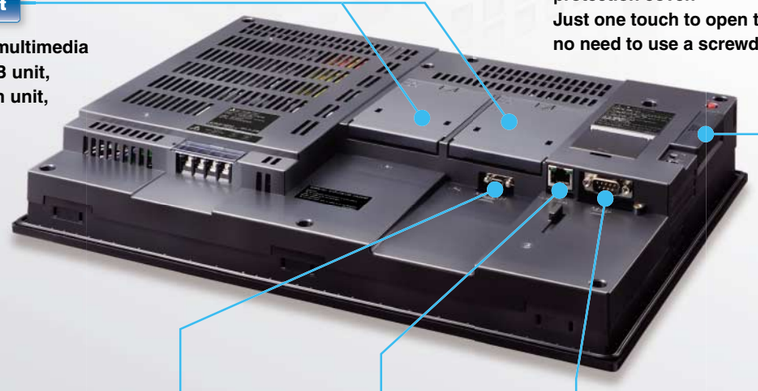
Automatically detects approaching people. Saves both energy and running cost.

USB host and USB device

Aesthetically pleasing and completely flat surface with a full-flat USB environmental protection cover.
Just one touch to open the cover, and there is no need to use a screwdriver.

Extension unit

For mounting a multimedia unit, a video/RGB unit, a communication unit, etc.



CF card

RS-422/485

Ethernet

RS-232

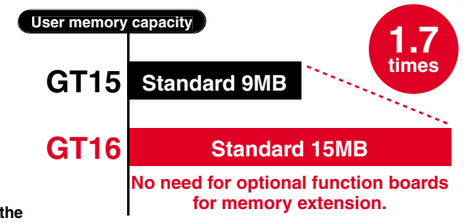
GRAPHIC OPERATION TERMINAL GOT1000

Greatly increased memory capacity! Requiring no optional function boards

■Enables use of real parts without having to worry about the memory capacity

The user memory is increased from the standard 9MB to 15MB.
An optional function board is not necessary for memory extension.

►Increased memory capacity (See page 26.)



■Useful functions are available while requiring no optional function boards

Requires no optional function boards that were previously necessary when using the multi-channel function, the document display, and the Q/QnA ladder monitor function.

Equipped with USB host and USB devices

■USB host (Type A)

Hooking up a USB memory drive here enables storage of resource data such as operating systems, project data and alarm logs, as well as backup/restored data such as sequence programs. The data communication is simple and easy between the GOT main unit and a CF card.

■USB device (Mini-B)

Connecting the USB device (Mini-B) to a personal computer enables the transfer of perating systems and project data without opening the panel. The FA transparent function enables modification of sequence programs.

►Equipped with front USB interface (See page 43.)
►FA transparent function (See page 43.)

Various interfaces are available as standard features, including Ethernet, RS-422/485, and RS-232

■A variety of built-in interfaces

The built-in interfaces (Ethernet, RS-422/485 and RS-232) enable connection to up to four kinds of FA equipment simultaneously without installing an additional optional communication unit.

►Multi-channel function (See page 29.)

■Ethernet helps extend systems

The built-in Ethernet interface connects to a PLC CPU with a built-in Ethernet and a host system easily while requiring no optional communication unit.

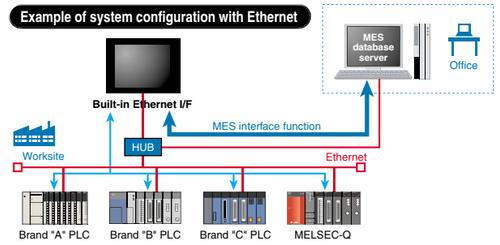
►Wide selection of connectable FA devices and peripherals (See page 28.)
►Gateway function (See page 32.)
►MES interface function (See page 33.)

✻: For the Ethernet connection, if connected to equipment compatible with 10BASE (-T/2/5), use a switching hub for its operation in a network environment where both 10Mbps and 100Mbps systems are operable.

■Ethernet enables simultaneous monitoring of PLCs of different manufacturers

The built-in Ethernet interface enables connection to up to four kinds of PLCs of different manufacturers.

►Multi-channel function (See page 29.)



All the models are compatible with multimedia and video/RGB units

■Compatible with recording and playing back high resolution motion images

Multimedia functions capable of recording and playing back smooth flow of motion images can visually check and monitor site conditions in an emergency and give instructions in the form of motion image manuals.

►Multimedia function (See page 30.)

■The 15" type is also compatible with video/RGB

Even when displaying motion images from four video cameras in four respective windows simultaneously on the screen, the GT16 displays natural, smooth, and large motion images without skipping image cells.

►For Video/RGB (See page 30.)

Featuring an analog touch panel

■Layout flexibility to create desired pictures

Free to lay out objects such as touch switches, enabling creation of desired screens.
The clear display without grids makes it easy to recognize pictures and characters.

Many more useful functions are available

- More flexible and free screen design ►Overlap window extension (See page 26.)
- Seven-segment display ►An assortment of fonts allows for more expression (See page 36.)
- GT Designer2 is easier to use. ►Guideline, others (See page 39.)
- The GOT operation history is traceable. ►Batch self check function (See page 45.)

NEW model

GOT1000 GRAPHIC OPERATION TERMINAL

GT10

Equipped with necessary and sufficient functions, the 5.7" type of the second-to-none cost performance GOT is here to debut!

NEW

GT1055

GT1055-QSBD STN color (256 colors)

High cost performance, 256-color model

NEW

GT1050

GT1050-QBBD STN monochrome 16 gray scales (white/blue)

Equipped with a white/blue monochrome liquid crystal display – a new feature of the GOT1000 series

GT1020 GT1030

NEW

The white frame model – launched into market (Built to order)

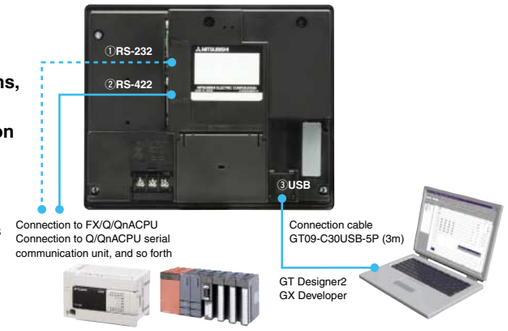
✻ : See "GT10 model" (page 52) for details.

Equipped with 3-channel communication port

■The GT10 has all of its communication ports on the back

①RS-232 (D-SUB 9-pin, male)
②RS-422 (D-SUB 9-pin, female)
③USB device (Mini-B)
As the GT10 is on many occasions for stand-alone applications, it has personal computer interfaces on its back.
The GT105□ has a USB, offering three-channel communication ports together with RS-422 and RS-233.
The USB and RS-232 ports are compatible with the FA transparent function of Mitsubishi PLCs.

✻ : Refer to "GOT1000 connection manual" for the details of compatible models and connections.



OS pre-installed

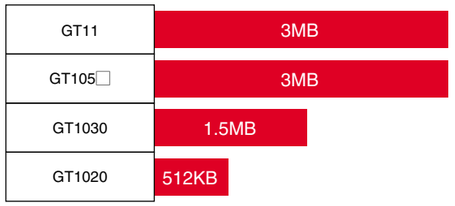
■Pre-installed OS reduces process time

The GT10 has a basic operating system and communication driver (for FX) pre-installed as it is often used with FX series production equipment.
For connection to an FX PLC, simply enter the project data, and the GT10 is already up and running.

3MB memory of ample margin

■Use the functions as you like without concern for memory constraint

The GT10 has 3MB memory, the same as for the higher model GT11. You can use a variety of objects, parts and functions without being bothered by the memory capacity.

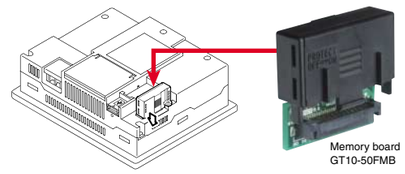


✻ : Note that the maximum number of screens differs between GT10 and GT11.

Easy updating with a memory board

■An optional memory board is available

This enables to easily update the GOT without a personal computer. The feature is convenient where you cannot take your personal computer with you such as on a business trip or when servicing a customer in a remote area.
It also enables reading out of the current data to back it up before alteration.



An outstanding cost performance

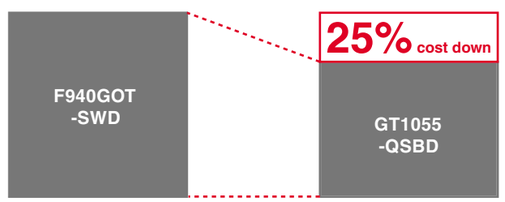
■Offers more functions at lower cost than conventional models

Developing ease of use unique to the GOT1000 and offering satisfactory functions at a 25 percent cost reduction.

Specification comparison between F940GOT and GT1055

	F940GOT-SWD		GT1055-QSBD
Memory	512KB	Improved functions	3MB
Communication port	2ch		3ch
Baud rate	38.4Kbps		115.2Kbps
STN color	8 colors		256 colors
Environment resistance	IP65f		IP67f

Standard price comparison of STN color types between F940GOT and GT1055



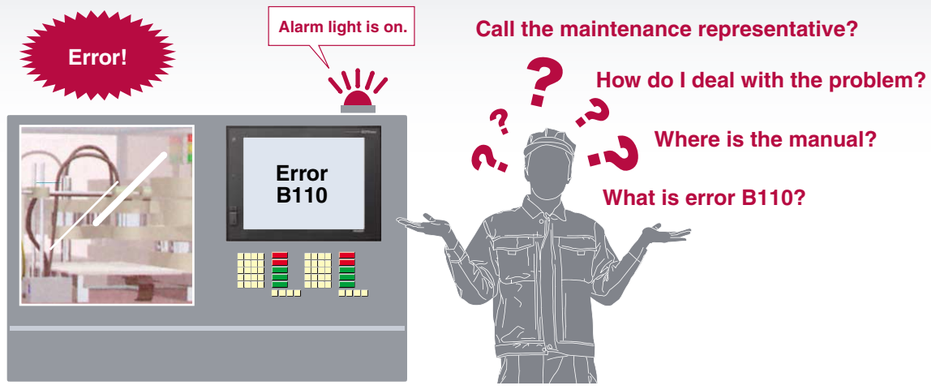
✻ : For other functions, see "GT10 model" (page 52).

Ensuring safe operation, the GT16/GT15 offers better solutions for you.

CASE 1

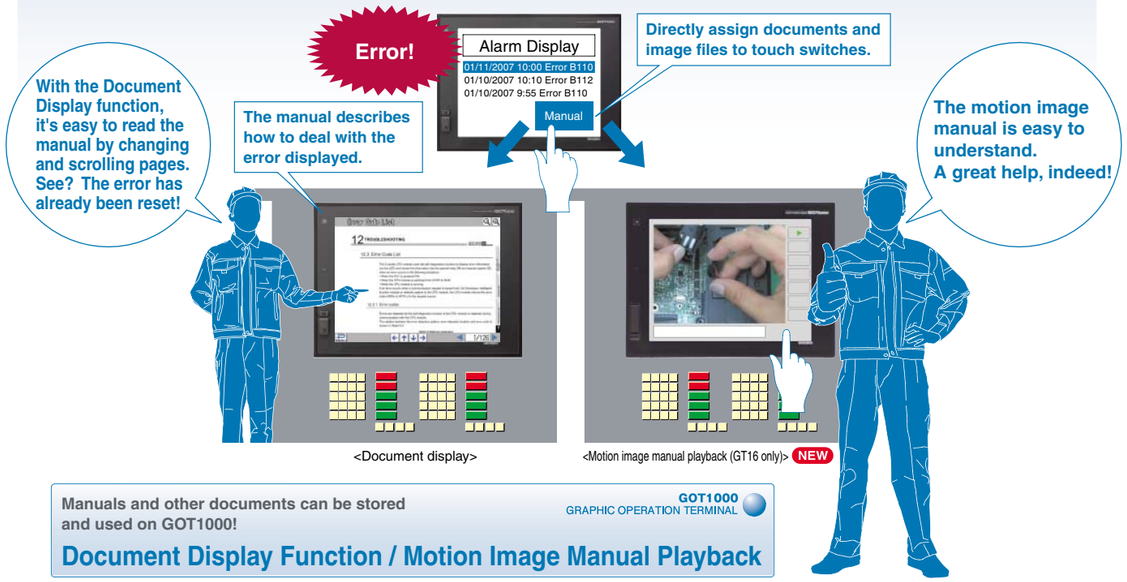
Don't panic when encountering unexpected errors — Quick troubleshooting at the worksite

Before



GOT Solution①

Install troubleshooting manuals on GOT1000, and let's get simple problems solved at a worksite.



<Document display> <Motion image manual playback (GT16 only)> NEW

Manuals and other documents can be stored and used on GOT1000!

GOT1000 GRAPHIC OPERATION TERMINAL

Document Display Function / Motion Image Manual Playback

- Documents such as troubleshooting manuals can be displayed for quick reference to reduce downtime.
- Particularly efficient in places where paper manuals or personal computers cannot be brought in, such as clean rooms.
- General-purpose documents (doc, xls, ppt, pdf, jpg, and bmp) and general-purpose file formats (3GP and MP4) are supported, making it easy to create your own screens.

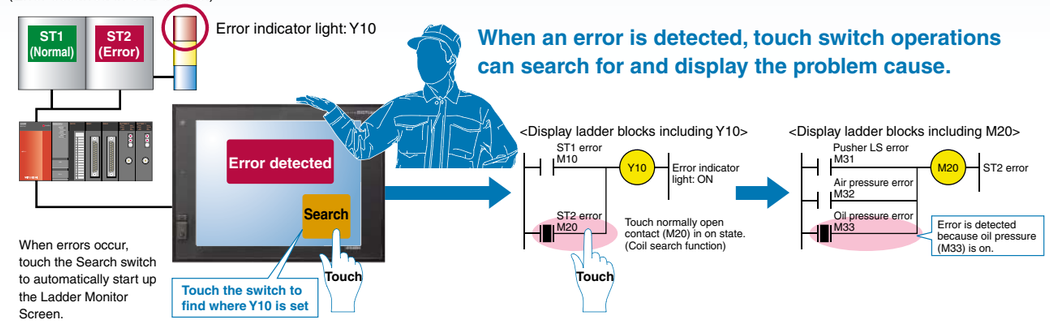
*: Motion image manual playback is for the GT16 only.

<See pages 30 and 45 for details of the functions.>

GOT Solution②

Investigate the problem cause at the production site

(Error occurred in ST2 device!)



Reduce downtime after problems caused by equipment breakdown or a halt in the operation

GOT1000 GRAPHIC OPERATION TERMINAL

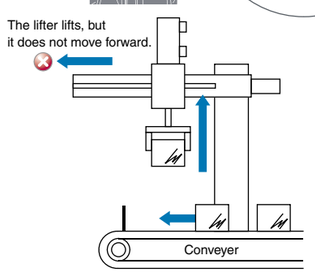
One-Touch Ladder Jump function

- Just touch the operation flow diagram on the GOT, which will show you the root cause of the problem. There is no need to use personal computers or ladder programs.
- Using general purpose PLC error indication programs and detection programs makes developing new search programs and screens unnecessary.

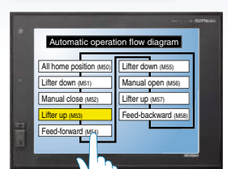
<For more details, see page 50 of this catalog.>

(Application case) When error messages are not displayed

Before

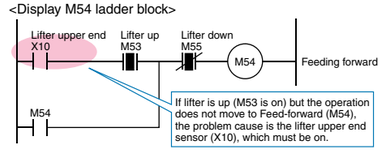


GOT Solution



During automatic operation, if the operation stops at a certain place, touch the operation block to display the relevant ladder block.

<Display M54 ladder block>

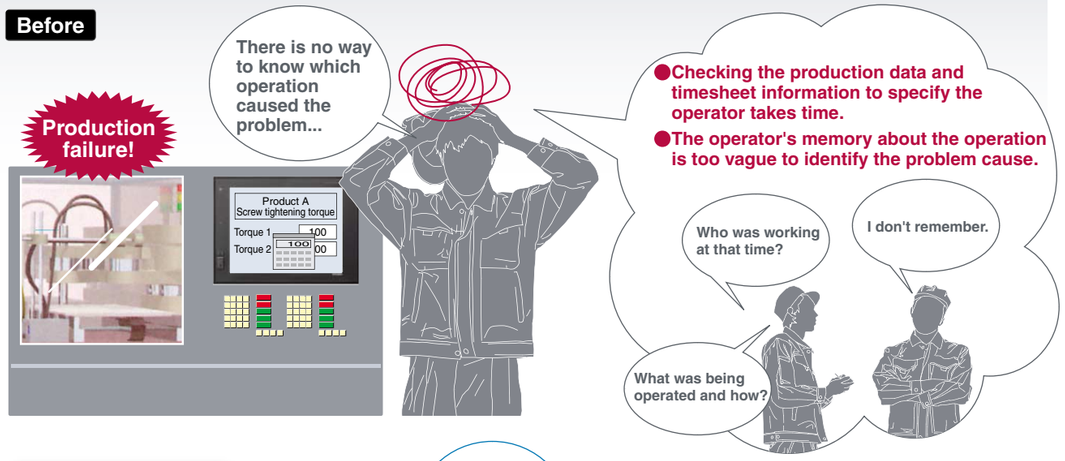


Operation halts due to unknown reasons at an unknown location – the problem cause can be quickly found by tracing operations on the GOT.

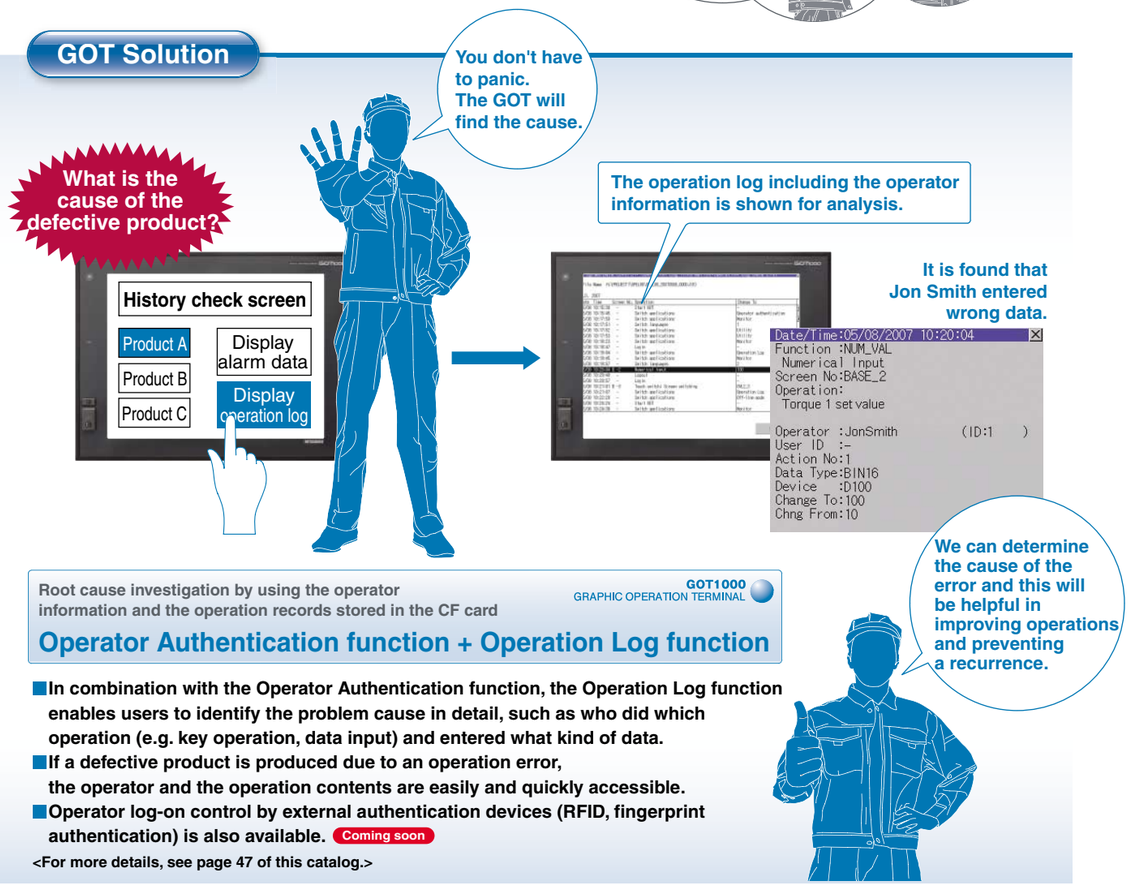
CASE 2

Quickly detect the cause of the problem to minimize production loss due to unexpected product failures

Before



GOT Solution



Root cause investigation by using the operator information and the operation records stored in the CF card

GOT1000 GRAPHIC OPERATION TERMINAL

Operator Authentication function + Operation Log function

- In combination with the Operator Authentication function, the Operation Log function enables users to identify the problem cause in detail, such as who did which operation (e.g. key operation, data input) and entered what kind of data.
- If a defective product is produced due to an operation error, the operator and the operation contents are easily and quickly accessible.
- Operator log-on control by external authentication devices (RFID, fingerprint authentication) is also available. Coming soon

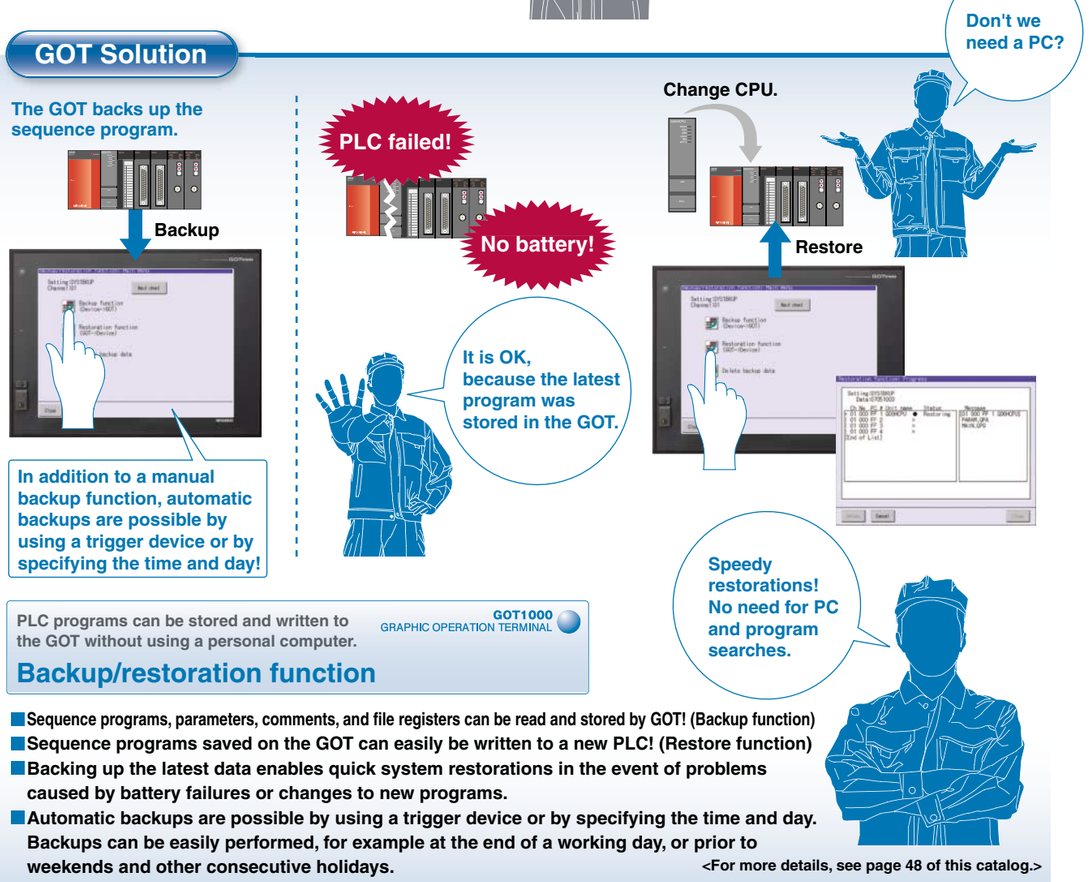
<For more details, see page 47 of this catalog.>

CASE 3

Backup your sequence programs on the GOT. Keep your system safe in case of a PLC failure.

Before

GOT Solution



PLC programs can be stored and written to the GOT without using a personal computer.

GOT1000 GRAPHIC OPERATION TERMINAL

Backup/restoration function

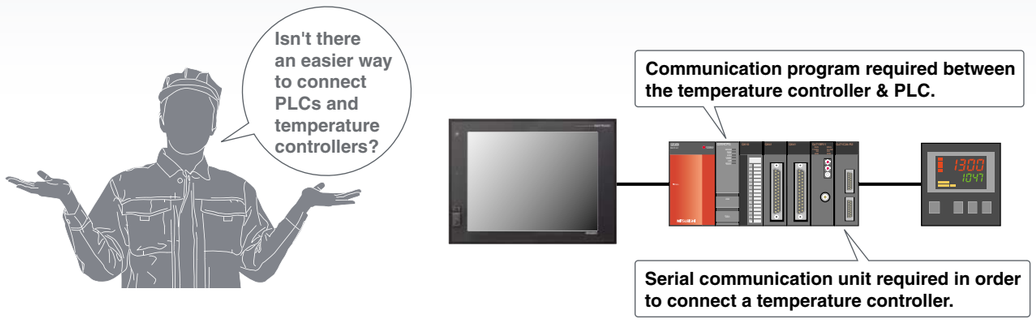
- Sequence programs, parameters, comments, and file registers can be read and stored by GOT! (Backup function)
- Sequence programs saved on the GOT can easily be written to a new PLC! (Restore function)
- Backing up the latest data enables quick system restorations in the event of problems caused by battery failures or changes to new programs.
- Automatic backups are possible by using a trigger device or by specifying the time and day. Backups can be easily performed, for example at the end of a working day, or prior to weekends and other consecutive holidays.

<For more details, see page 48 of this catalog.>

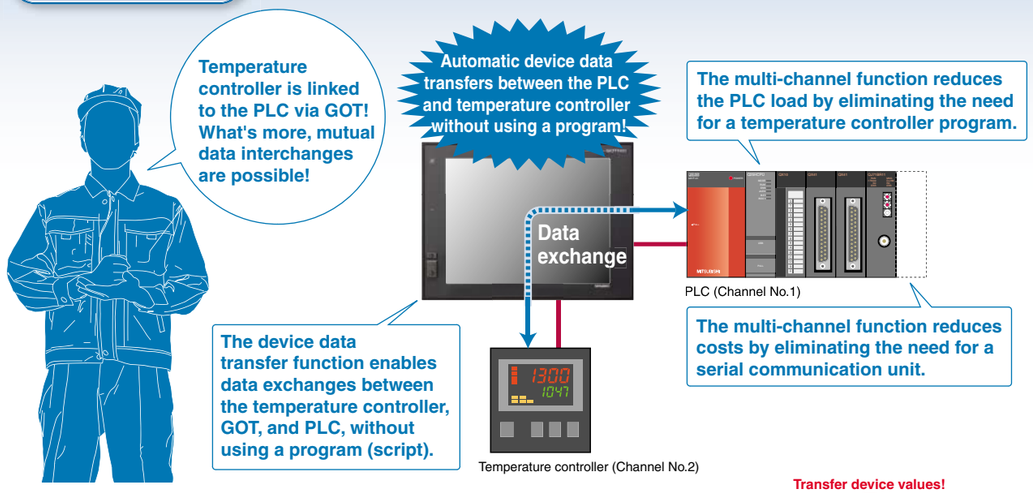
CASE 4

Quick connection of third-party FA devices! Data exchange without using programs.

Before Connection of a temperature controller requires a dedicated unit and program. Extra cost and PLC burdens…



GOT Solution

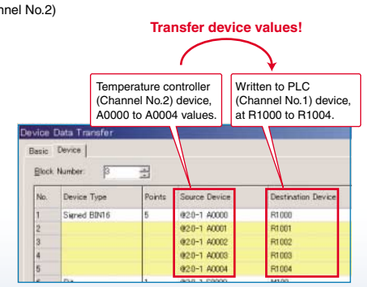


The PLC and temperature controller are easily linked via GOT!

GOT1000 GRAPHIC OPERATION TERMINAL

Multi-channel function + Device data transfer function

- With the multi-channel function, a single GOT unit can monitor up to 4 channels of FA devices.
- The device data transfer function can be set to read/write specified device values at specified times, or periodically!
- Simply specify the transfer source & destination devices, and the trigger in GT Designer2!



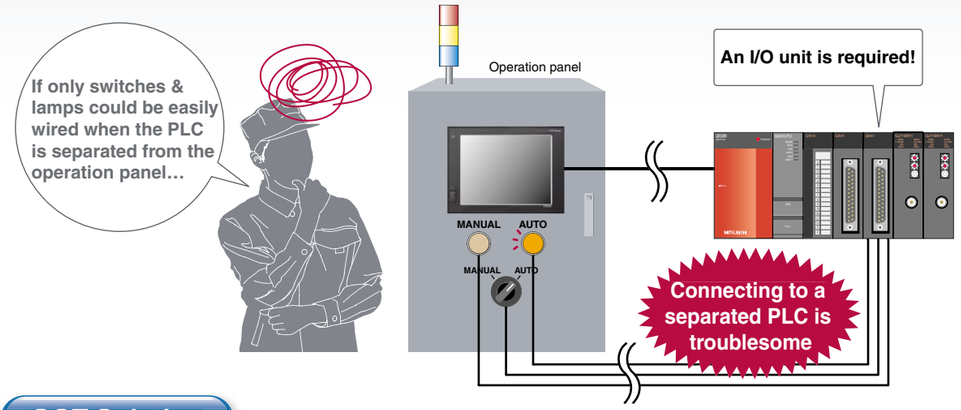
Device data transmission setting screen

<for more details, see page 29 of this catalog.>

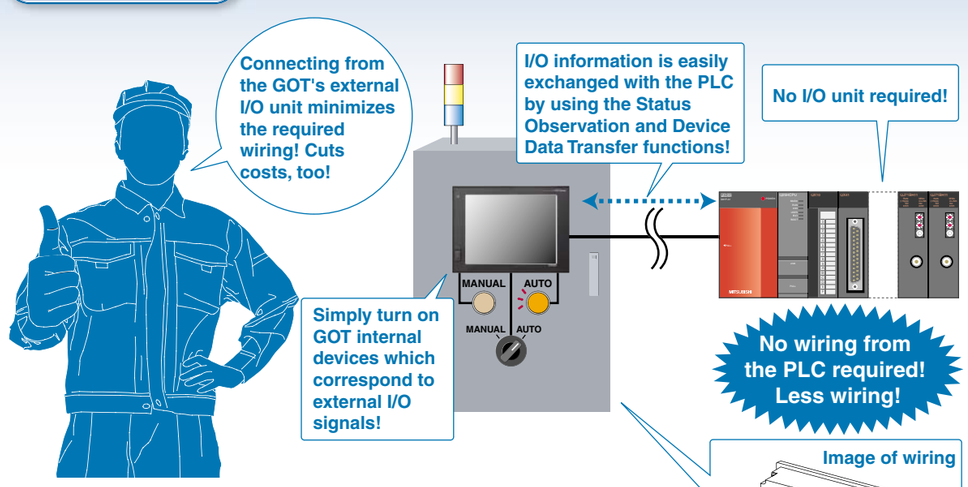
CASE 5

Direct connection to I/O devices! Effectively reduces both costs and wiring.

Before In systems where the PLC and the operation panel are separated, connecting wires to the operation panel switches and lamps is troublesome…



GOT Solution



Less wiring is required with direct inputs/outputs from the GOT!

GOT1000 GRAPHIC OPERATION TERMINAL

External I/O function

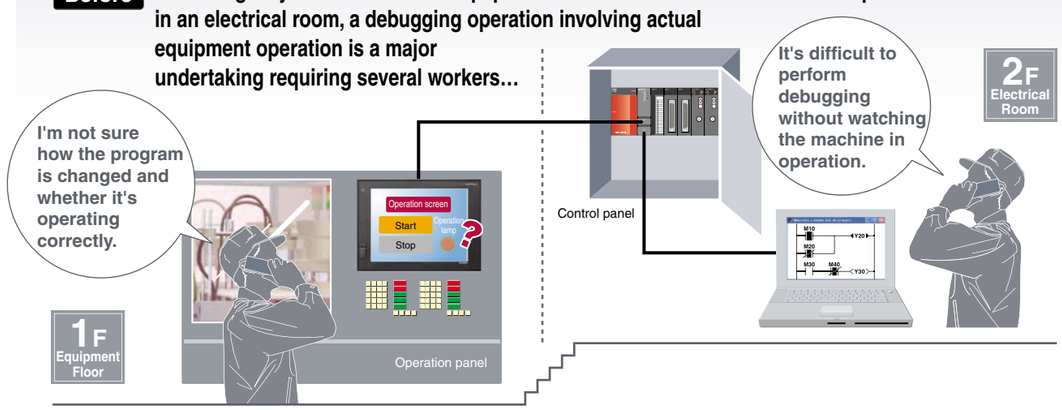
- Up to 128 input points (16 input points x 8 scan points), and 16 output points!
- The system can be simplified by connecting the GOT directly to the I/O device!

<for more details, see page 31 of this catalog.>

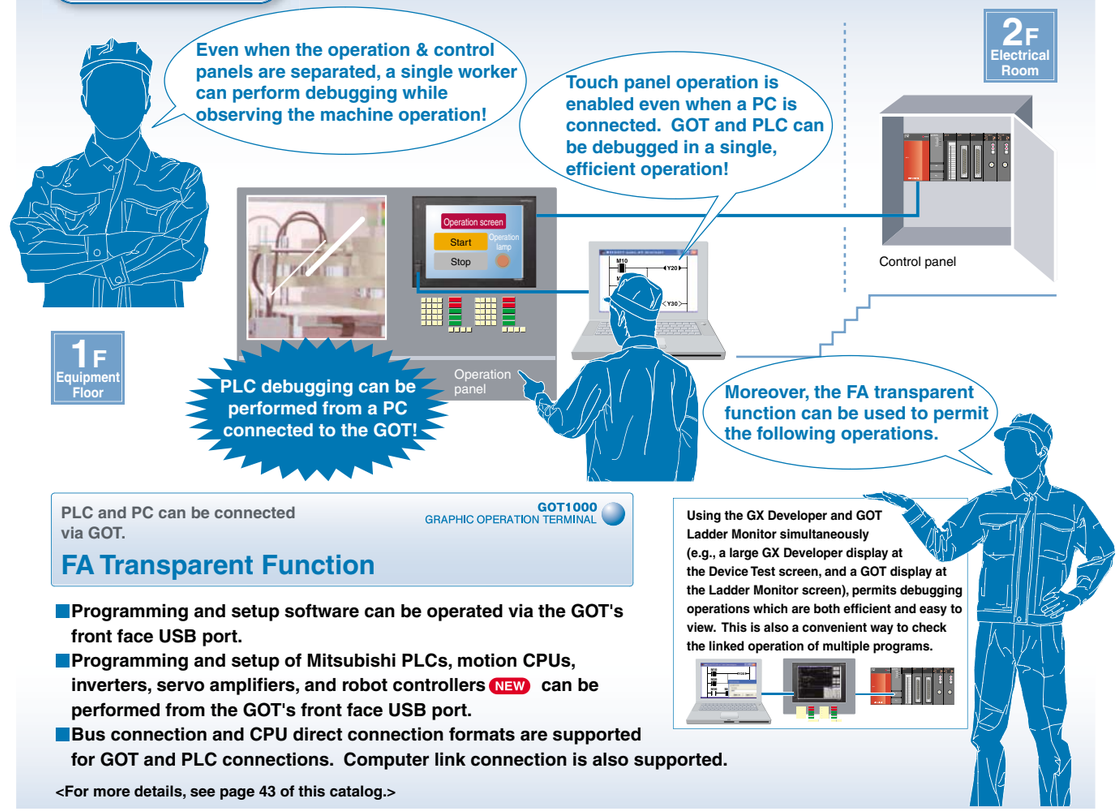
CASE 6

Smooth debugging even when the operation & control panels are separated.

Before Assuming a system in which the equipment is on the 1st floor and the control panel is on the 2nd floor in an electrical room, a debugging operation involving actual equipment operation is a major undertaking requiring several workers...



GOT Solution



PLC and PC can be connected via GOT.

GOT1000 GRAPHIC OPERATION TERMINAL

FA Transparent Function

- Programming and setup software can be operated via the GOT's front face USB port.
- Programming and setup of Mitsubishi PLCs, motion CPUs, inverters, servo amplifiers, and robot controllers NEW can be performed from the GOT's front face USB port.
- Bus connection and CPU direct connection formats are supported for GOT and PLC connections. Computer link connection is also supported.

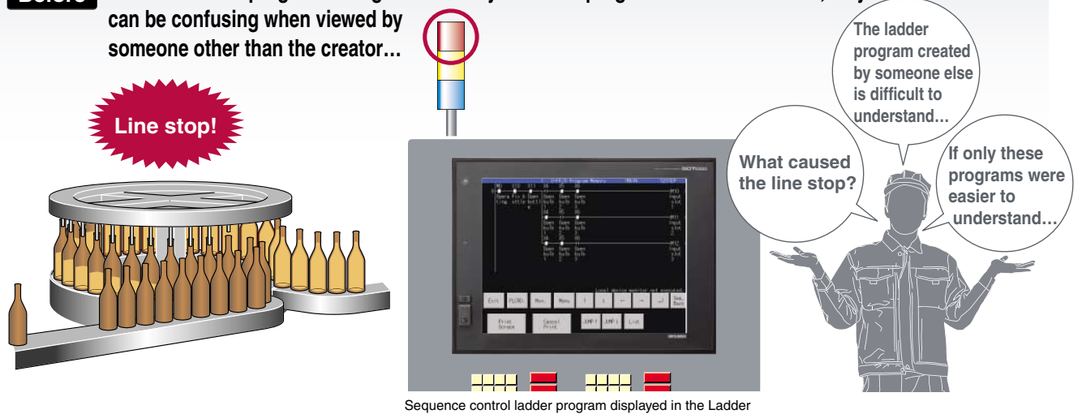
<For more details, see page 43 of this catalog.>

Using the GX Developer and GOT Ladder Monitor simultaneously (e.g., a large GX Developer display at the Device Test screen, and a GOT display at the Ladder Monitor screen), permits debugging operations which are both efficient and easy to view. This is also a convenient way to check the linked operation of multiple programs.

CASE 7

SFC monitor function enables quick identification of line stop causes.

Before Because ladder program configurations vary from one program creator to another, they can be confusing when viewed by someone other than the creator...

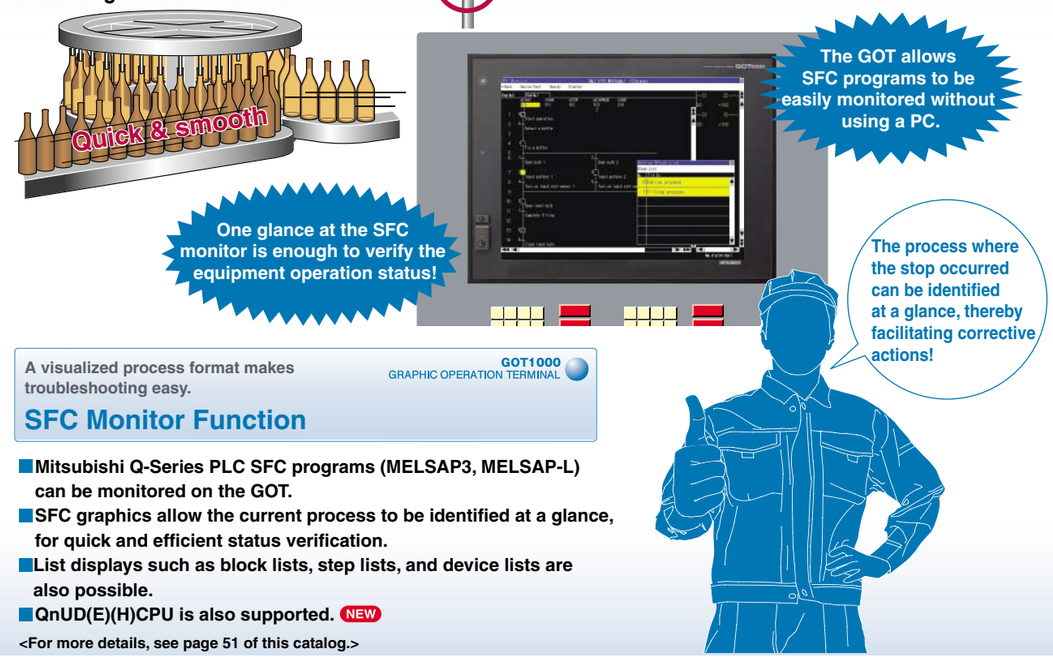


Sequence control ladder program displayed in the Ladder Monitor screen

GOT Solution

SFC programs are easily understood by anyone! Moreover, GOT's SFC monitor function allows the equipment operation status to be verified at a glance, even without a PC, thereby facilitating corrective actions!

SFC programs express the equipment operation sequences in a flowchart format, making them easy to create and understand, even when created by someone else.
✻ : These programs are created/edited in GX Developer.



A visualized process format makes troubleshooting easy.

GOT1000 GRAPHIC OPERATION TERMINAL

SFC Monitor Function

- Mitsubishi Q-Series PLC SFC programs (MELSAP3, MELSAP-L) can be monitored on the GOT.
- SFC graphics allow the current process to be identified at a glance, for quick and efficient status verification.
- List displays such as block lists, step lists, and device lists are also possible.
- QnUD(E)(H)CPU is also supported. NEW

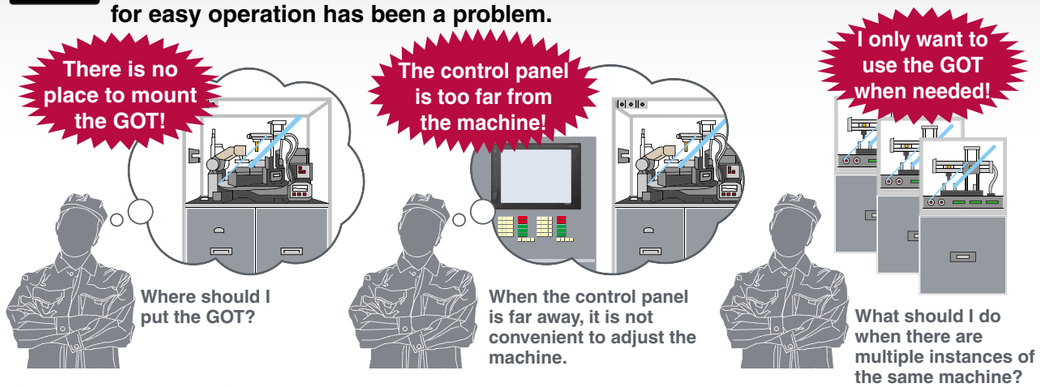
<For more details, see page 51 of this catalog.>

For a wide variety of applications, the GT11/GT10 fits all parts of the production line.

CASE 8

Portable handy type GOT expands machine design flexibility and increases work comfort.

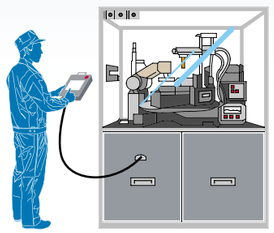
Before In machine tool manufacturing, the position and layout of the operation panel for easy operation has been a problem.



GOT Solution

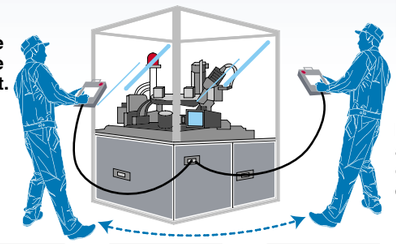
Portable and wearable Handy terminals can be used in many ways.

Limitless installation possibilities

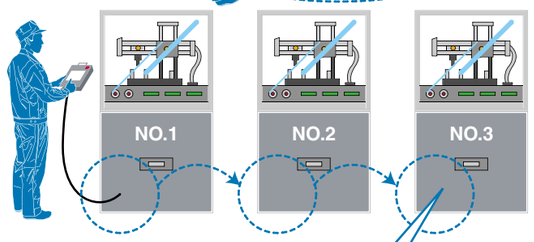


Small installation space.
Operators can connect the GOT only when needed.

Operable from every direction



Take the GOT around only when needed



Easy to connect and disconnect.
One GOT for two or more devices.

Easy to carry, easy to mount.
The possibilities are endless.
GOT1000 GRAPHIC OPERATION TERMINAL
Handy GOT


Handy GOT connector conversion box

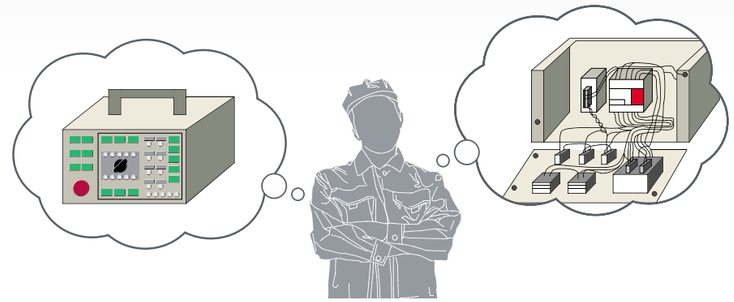
- Minimum mounting space required for handy terminal.
- Possible to use a single GOT to operate multiple machines by connecting the GOT to the machines one by one.
- Easy to initialize and adjust machine tools. The portable handy GOT can be used from different positions around the machine.

<For more details of functions, see page 57 of this catalog.>

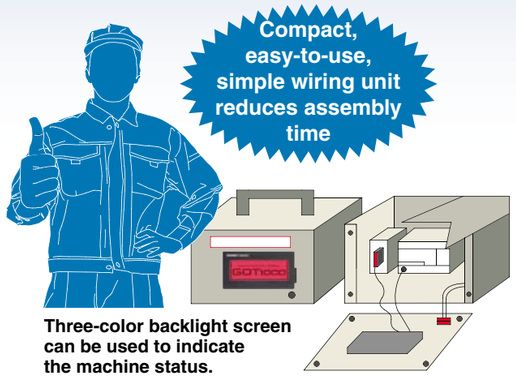
CASE 9

Extremely compact size expands the effectiveness of the GOT1000 series

Before Hardware switches and lamps take up space on the control panel, and it takes a lot of effort to change the layout and wiring when specifications are changed.

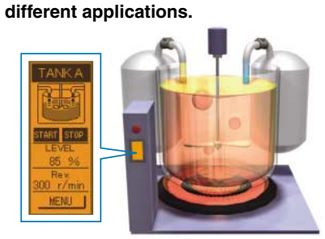


GOT Solution



Three-color backlight screen can be used to indicate the machine status.

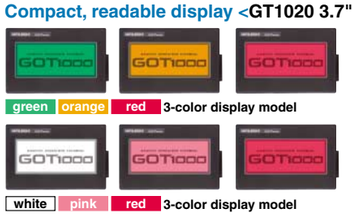
Both horizontal and vertical mounting available to meet the needs of different applications.



For simple and small applications, GOT1000 is just right.
GOT1000 GRAPHIC OPERATION TERMINAL
GT10 models (GT1020/GT1030)

- Highly flexible GOT screen layout with bright, clear 3-color indication

Compact, readable display <GT1020 3.7" type>



Clear, sharp, wide display <GT1030 4.5" type>

The white frame type is now available for GT1020/GT1030! NEW

<For more details of functions, see pages 52 to 56 of this catalog.>

GRAPHIC OPERATION TERMINAL GOT1000

GOT1000 provides a variety of functions to satisfy user requirements

Usability depends on who the users are and where they carry out their tasks.
Designers want to use the most advanced HMI technology, while maintenance engineers want the safest HMI for their facilities.
To satisfy all of our customers, we are constantly developing more and more functions for the GOT1000.

INDEX

There are many different applications to be solved.
How do we stay flexible?

For designers

In addition to a clear, easy-to-read display,
we make stress-free operation a priority.

For operators

Efficiency requires both fast data transfer as
well as user-friendly functions.

For initial startup & adjustment operators

To restore a system as quickly as possible,
response capabilities for "just in case"
situations is the key to selecting a HMI display.

For maintenance personnel

GT16 GT15 The functions bearing these marks are available on the GT16/GT15 model only.
All other functions are supported by GT16, GT15, GT11 models.

Greatly improved comment input, language selection and screen drawing efficiency

For designers

Efficient input of extensive comment data

GOT1000 GRAPHIC OPERATION TERMINAL

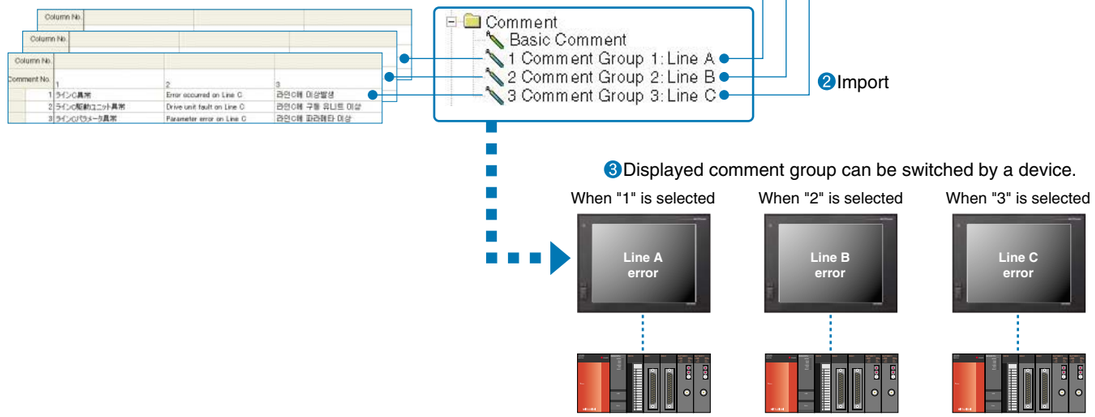
Comment groups

- CSV/Unicode text format files can be imported. Multiple files can also be imported to individual comment groups, allowing the comment input task to be distributed among several workers, greatly reducing the required input time.
- GT Designer2 allows easy column and line insertions and comment No. changes similar to those offered by Microsoft® Excel.

Management of project data line by line is no longer required.

Example of comment group use

❶Line-specific comment groups are created.



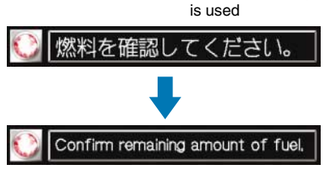
No need to adjust character string length

GOT1000 GRAPHIC OPERATION TERMINAL

Automatic length adjustment of comment group labels

- Automatically adjusts character size and inserts line feeds according to the object size.

<Supported objects> • Touch switches or lamps where "comment group" is selected for labels
• Comment displays where "comment group" is used



When switching languages, character string length is automatically adjusted to fit within the object.

Easy-to-create language switching screens

GOT1000 GRAPHIC OPERATION TERMINAL

Comment groups for switch/lamp labels and alarm history comments

- Comment groups can be used for alarm history comments.
- Comment groups can be used to display label names on touch switches and lamps.

<Supported objects> • Touch switches, lamps, alarm history, comment display, advanced alarm

Example of touch-switch label usage

When switching languages, convenient comment groups can also be used for touch switches, lamps, alarm history, and other objects.

Display in Japanese

Display in English

Display in Chinese

Easy creation of multilingual screens

GOT1000 GRAPHIC OPERATION TERMINAL

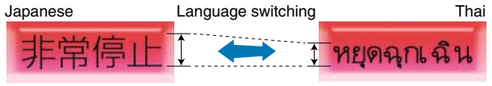
Multilingual support

- Different language comments can be created for each comment group column to switch the display language.
- Comment group comments can be created freely for applications, as well as for different languages.
- You can specify the column number of the comment group to change the language of the startup message on the GOT. NEW

✻: For details, see "Comment groups" (page 24).

Convenient for language switching

When stroke fonts are used with switching languages for touch switches, lamps or comment displays, the character size is automatically adjusted by the size of the object. There is no need to adjust the size of the object when creating a multi-language screen.



The character size is automatically adjusted.

✻: Thai characters on GT16 and GT15 only.

For better work efficiency and enhanced customization functions

GOT1000 GRAPHIC OPERATION TERMINAL

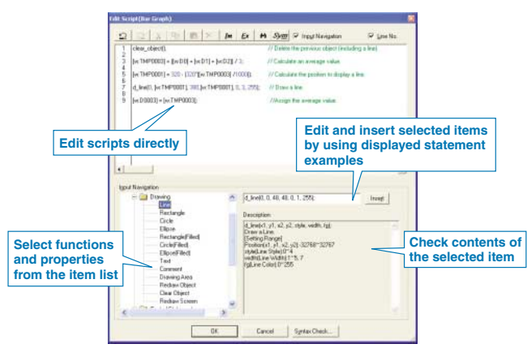
Script function

Project script/screen script

- Controlling GOT display by using GOT scripts can reduce the load on PLCs (PLC CPU, microcomputer, etc.) dramatically.
- Capable of executing a script file including multiple data formats, such as integers and real numbers, within one script. (Data format conversion function)
- Enables reading of device values from or writing values to a file freely with file operation functions (such as creating, deleting, opening, closing, reading and writing files).

Input support function makes it easy to specify functions and properties, thereby preventing spelling errors and reducing the time to look up control statements.

GT Designer2 script editor screen

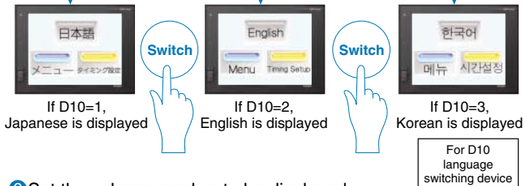


Users can quickly change the language display.

Example of switching between Japanese, English, and Korean screens

❶Create Japanese, English, and Korean comments in their respective columns.

Column No.			
Comment No.	1	2	3
1	メニュー	Menu	메뉴
2	タイミング設定	Timing Setup	시간 설정



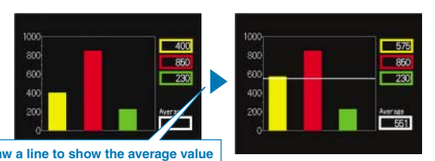
❷Set the column number to be displayed within the language switching device.

❸The displayed comment (language) changes.

Object script (For GT16 and GT15 only)

- Drawing and display control functions can be specified for every object, allowing objects to be easily used in other projects.
- Scripts make screen display control highly flexible by changing properties (colors and display positions) and making the object design process flexible. <Patent pending>
- Capable of referring to the height and width of an object using the property (display attribute). This increases drawing control flexibility when using drawing functions. NEW

Example of how to use object scripts (draw straight line on graph display)




```
clear_object();                                          // Delete the previous object (including the line).
[w:TMP0003] = ([w:D0] + [w:D1] + [w:D2]) / 3;            // Calculate the average value.
[w:TMP0001] = 320 - (320*([w:TMP0003] /1000));           // Calculate the position to display the line.
d_line(0, [w:TMP0001], 380,[w:TMP0001], 0, 3, 255);      // Draw the line.
[w:D0003] = [w:TMP0003];                                 // Assign an average value.
```

Improved usability provides designers with more comfortable and flexible screen design options

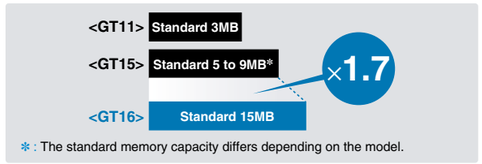
For designers

Designing and using functions without memory capacity limitations

GOT1000 GRAPHIC OPERATION TERMINAL

Increased memory capacity

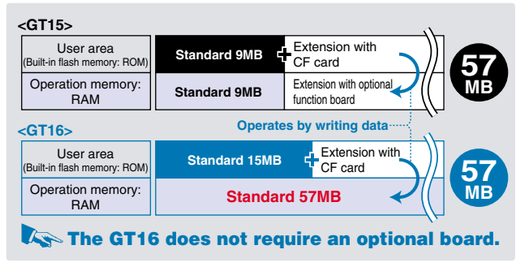
- The GT16 has increased the user area (built-in flash memory: ROM) to 15MB as a standard feature, enabling operation of many optional functions at the same time. NEW



* : For more details about the memory capacity, see "Notes for use" (page 78).

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

- The GT16 has an operation memory (RAM) of 57MB as a standard feature. Up to 57MB is available for use without an optional function board. NEW
- When the total of project data, optional function operating systems and other data exceeds the user area (built-in flash memory capacity), the GT16 and GT15 store the project data in a CF card to extend the user area up to 57MB.



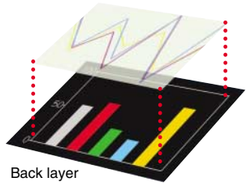
Increased flexibility in designing screens

GOT1000 GRAPHIC OPERATION TERMINAL

Component layering (Layer function)

- Component (object, figures) layering increases the flexibility of design.

Layer graphs



Back layer

Front layer + Back layer

Improved expressiveness in screen design

GT16 GT15

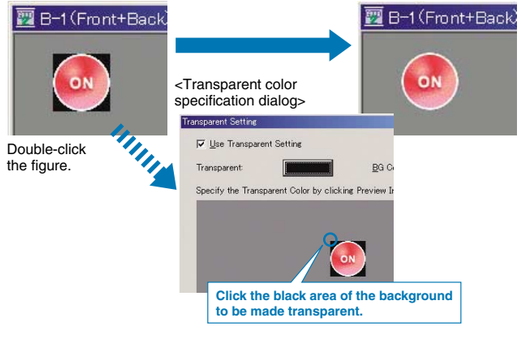
GOT1000 GRAPHIC OPERATION TERMINAL

Transparent bitmap figures

- Designers can specify a transparent color for bitmap data.
- Since the background of figures (not limited to rectangle) can be made transparent, the expressiveness of screen design is widely expanded.

<Before specifying transparent color>
The background is displayed in black.

<After specifying transparent color>
The black background becomes transparent.



Up to five windows appear on the screen. For designing screens flexibly and effectively

NEW GT16

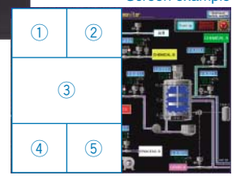
GOT1000 GRAPHIC OPERATION TERMINAL

Overlap window extension

- Displaying up to 5 overlapped windows on the screen at one time. (Up to 2 for models other than the GT16)
- More information appears simultaneously on the screen, improving flexibility in screen design.

With the window title bars masked, the windows fit in screen segments as shown in the example, greatly improving flexibility in screen design.

Screen example



Simplify complicated production setup with the GOT

For designers

Simple process of creating complicated recipe data

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Advanced recipe function

This function allows material combination data and processing conditions data (device values) to be held in the GOT, with only the required data being written to and read from the PLC.

Extensive number of recipe files, device points, and record points

- Greatly expanded capacity permits up to 2,048 recipe files and 32,767 device points.
- Up to 2,000 types of device values can be handled by a single advanced recipe setting file.

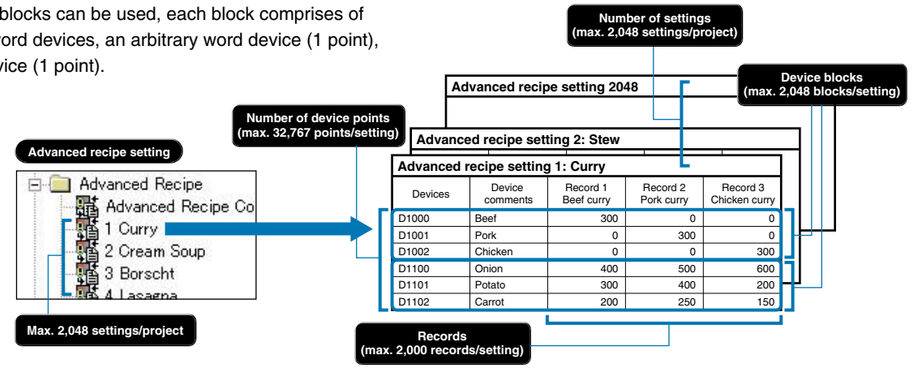
Flexible recipe data can now be created.

- Flexible recipe data can be created by combining advanced recipe settings and records.
- Reading/writing is performed by specifying the recipe No. and record No., eliminating the need for a trigger device for each file. This reduces the number of devices, and permits trigger device concentration. *1
- Because devices also permit bit and word combinations and arbitrary device settings, there is no need to centralize the sequential devices used, thereby reducing the total number of device points used.
- Advanced recipe files can be converted into CSV or Unicode format text files, and can be edited on a personal computer. *2

*1 : The "recipe No. saving device, "record No. saving device," and the "external control device" can be specified in the advanced recipe common settings in GT Designer2. (These settings are required when using Advanced Recipe) After values are saved to every device, reading and writing of the recipe data is enabled in accordance with the ON/OFF status of the external control device. (It is also possible to specify a trigger device for reading/writing each advanced recipe setting)

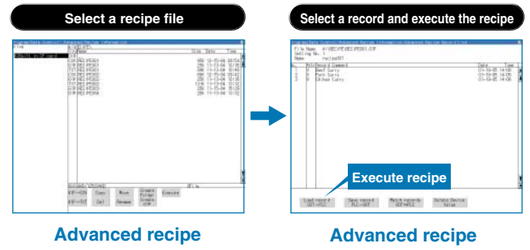
*2 : The advanced recipe file has a binary format. It must therefore be converted to either a CSV file or a Unicode text file by using GT Designer2, the GOT utility, or an external control trigger device. After being converted, only the device values can be edited. When more than 251 records are included in an exported Advanced Recipe file (CSV or Unicode text format), use a text editor or Microsoft Excel 2007 to open the file.

- Up to 2,048 blocks can be used, each block comprises of sequential word devices, an arbitrary word device (1 point), and a bit device (1 point).



Easy handling of recipe data using the GOT

- Recipes can be handled easily by the GOT's utility function without having to create a recipe operation screen.
- The utility function permits the following operations: folder create/delete, advanced recipe file copy/delete/rename, record write/read/consistency check.



Advanced recipe information screen

Advanced recipe record list screen

Connecting with various types of FA equipment and peripherals to bring about flexible networking

For designers

Continuously expanding connectable devices and models

GOT1000 GRAPHIC OPERATION TERMINAL

Wide selection of connectable FA devices and peripherals

PLCs

- A wide array of device models / types are now connectable. NEW
  - Mitsubishi MELSEC FX series: FX3G
  - PLCs made by LS Industrial Systems.
- Mitsubishi MELSEC-Q series: Compatible with QCPU having built-in Ethernet port (QnUDE(H)CPU).
  - The GT16 series models are equipped with an Ethernet interface as a standard feature. When connecting to QCPU with built-in Ethernet port (QnUDE(H)CPU), neither the PLC nor the GOT requires an Ethernet unit. This makes system configuration simple and easy.
- Mitsubishi MELSEC process control: Compatible with medium-size process CPUs (Q02PHCPU and Q06PHCPU).

Microcomputers

- Supported protocol
  - Mitsubishi Q/QnA/A computer link unit (8 types)
  - GOT-A900 series compatible (2 types)
  - GOT-F900 series compatible (2 types)
  - Digital Electronics (Proface) memory link format (3 types)

Temperature controllers

- Connectable models and types are expanded. NEW
  - Shinko Technos: PCD-300 series
  - RKC Instrument: CB series
  - Shinko Technos: Connection through RS-485 with ACS-13A/DCL-33A/JC/JCM-33A/PC-900/JIR-301-M series
- Data logging, parameter setting, and alarm display for temperature controllers are possible.

Mitsubishi CNCs

- When the C70 CNC is connected, the CNC data I/O function can be used to copy and delete work programs and parameters, etc.

✻ : For CNC data I/O function details, see "CNC monitor function / CNC data I/O function" (page 49).

Mitsubishi servo amplifiers

- MR-J3-□T and MR-J2S-□CP point tables can be edited. Positioning information is easily edited by connecting a GOT to the servo amplifier.
- Users can create parameter settings, alarm displays, and test operation screens. There is no need to create screens to use the servo amplifier monitor function.

✻ : For more details on the servo amplifier monitor function, see "Servo amplifier monitor function" (page 49).

Mitsubishi inverters

- Up to 10 inverters can be connected in multi-drop connection with capabilities of parameter setting and alarm display.

Mitsubishi industrial robots

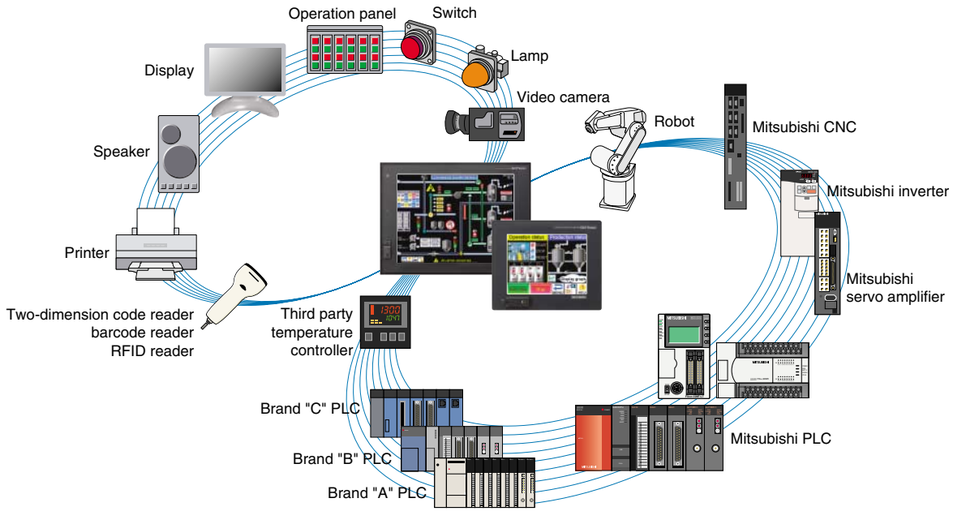
- Connection to robot controllers is now possible.
  - CRnQ-700 series
  - CRnD-700 series

Other peripheral devices

- External devices (operation panels, switches, lamps, and relays)
- Speakers
- Video cameras
- Displays (RGB output)
- Personal computers (RGB input)
- Printers
  - The latest PictBridge printers can be connected with a USB cable.
  - Print GOT screens (Hardcopy function) and output production results (Report function) when an error occurs.
- Two-dimensional code readers and barcode readers
- RFID reader

PictBridge

✻ : Connectable models and usable functions vary depending on the GOT main unit. For more details, see "List of connectable models" (page 62), "Notes for use" (page 77) and "Function list" (page 82).



Central storage of FA device information on a single GOT terminal

GT 16 GT 15

GOT1000 GRAPHIC OPERATION TERMINAL

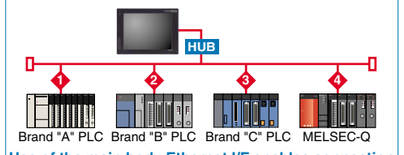
Multi-channel function

- Monitor up to 4 channels of FA devices (e.g. PLCs, servos, inverters, and temperature controllers).
- Monitor all FA devices on a single screen on the GOT. The monitor screen can be flexibly designed.
- The GT15 supports multi-channel connection by using the standard RS-232 interface and communication units simultaneously.
- Using the standard feature of Ethernet interface, the GT16 can simultaneously monitor up to four types of PLCs of different manufacturers. NEW
- Using the built-in interfaces (Ethernet, RS-422/485, and RS-232), the GT16 can connect with up to four types of FA equipment without an optional communication unit. NEW

The GT16 enables multi-channel connection without a communication unit!

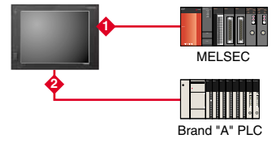
Typical applications

Third party PLCs via Ethernet NEW GT 16



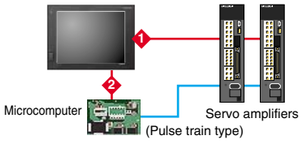
Use of the main body Ethernet I/F enables connection via Ethernet with up to 4 different types of PLCs

Third party PLCs



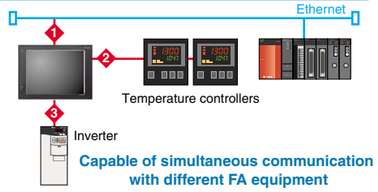
Easy data exchange between PLCs

MELSERVO + Microcomputer



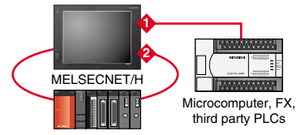
Central management of alarms and parameters

PLC + Temperature controller + Inverter



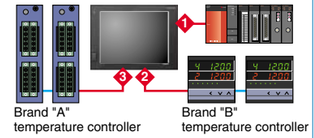
Capable of simultaneous communication with different FA equipment

Stand-alone PLCs (FX, or third party PLCs) **+ MELSECNET/H**



Stand-alone devices can be connected to the network

MELSEC + Third party temperature controllers



Monitoring of third party devices

✻ : For the Ethernet connection of the GT16, if the GT16 is connected to equipment compatible with 10BASE(-T/2/5), use a switching hub for its operation in a network environment where both 10Mbps and 100Mbps systems are operable.

✻ : The number of channels and functions, which can be used with the multi-channel function, vary depending on the connection configuration. For more details, see "Notes for use" (page 77).

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

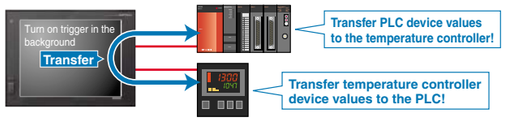
Greater control flexibility for system applications

GT 16 GT 15

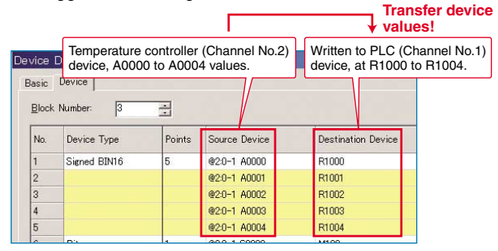
GOT1000 GRAPHIC OPERATION TERMINAL

Device data transfer function

- Device values from FA devices connected to GOT can easily be transmitted to GOT's internal device. Also, the multi-channel function can be used for easy mutual data transfer between multiple FA equipment.



- Data transfer timing can be set periodically or can be set by a trigger device, enabling control of various applications.
- Easily specify the transfer source, transfer destination, and the trigger in GT Designer2.



Device data transmission setting screen

Flexible motion images further expand GOT's possibility.

For designers

Smooth, high-quality motion images helps efficiently investigate the cause of a problem

NEW GT16 GOT1000 GRAPHIC OPERATION TERMINAL

Multimedia function

<Recording video images>

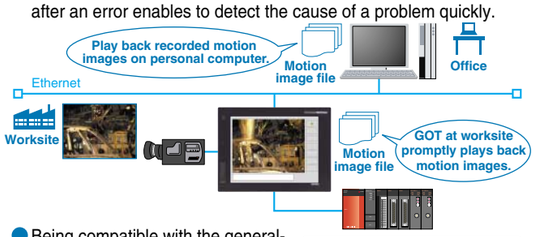
- VGA (640 × 480) and QVGA (320 × 240) are available for selection of image recording.
- The recording frame rate is maximum 30fps for QVGA and maximum 15fps for VGA, enabling to record smooth, natural motion images.
- Saves recorded motion image files on the multimedia CF card. By using the gateway function (FTP) and the multimedia data link tool, files can be transmitted to the server personal computer.

∗ : The GOT main body needs a CF card to transmit motion image files to a personal computer.

Images are recorded and played back on the dedicated multimedia screen, reducing the time spent designing screens.

<Playing back motion image files>

- The GOT or a personal computer can play back motion image files recorded at a worksite. Checking the motion images before and after an error enables to detect the cause of a problem quickly.



- Being compatible with the general-purpose formats, the GOT plays back motion images edited on a personal computer, which is a convenient function to create documents such as an instruction manual with motion images.

<Applicable software programs> • QuickTime 7 Pro
<Compatible file formats> • 3GP and MP4

Very general-purpose because of the capability of handling motion image data created by a commercially available software program.

<Recording pre/post event motion images>

- Capable of recording motion images for 120 seconds each before and after an error occurrence (with the event trigger device turned on), up to 240 seconds in total. The motion images tell you all about the conditions before and after the error occurrence.

Saves a motion image file of up to 240 seconds.

∗ : Only one of the following devices can be used at a time; multimedia unit, video input unit, RGB input unit, video/RGB input unit or RGB output unit.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

The multimedia data link tool is a multimedia-dedicated software program coming with GT Works2 / GT Designer2.

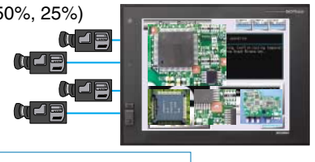
High-quality images with 65,536 colors provide precise detail

GT16 GT15 GOT1000 GRAPHIC OPERATION TERMINAL

For Video/RGB

Enhanced compatibility with cameras and inspection devices <Video input>

- Input images from up to four video cameras and inspection devices are simultaneously and precisely displayed on four windows in 65,536 colors. Images can be saved in JPEG format.
- Since a video window can be placed anywhere on the screen the screen flexibility is improved.
- A simple one-touch operation allows users to switch the display size. (100%, 50%, 25%)



An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Displays PC images on GOT <RGB input>

- PC images of either XGA (1024 × 768 dots), SVGA (800 × 600 dots) or VGA (640 × 480 dots) can be displayed at the same time as the GOT monitor screen. (XGA is for the GT1695M only.)
- Up to two channels can be used when handling RGB input. One GOT unit can conveniently switch between two personal computers or between the images on a personal computer and a vision sensor. (Only when using the GT16 M-R2.) NEW

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Display the GOT screen on a display <RGB output>

- Connect to a commercial display so that the GOT screen can be displayed larger.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

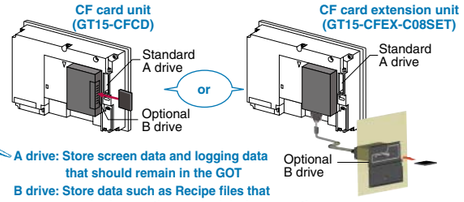
∗ : Only the GT1585V and GT1575V for the GT15 series. Only one of the following devices can be used at a time; video input unit, RGB input unit, video/RGB input unit, or RGB output unit.
∗ : Only one of the following devices can be used on the GT16 at a time; video input unit, RGB input unit, video/RGB input unit, RGB output unit, or multimedia unit.

Additional CF card unit for more convenient use

GT16 GT15 GOT1000 GRAPHIC OPERATION TERMINAL

CF card unit/CF card extension unit

- The standard CF card interface unit (A drive) and the optional CF card interface unit (B drive) can be used for separate purposes.



A drive: Store screen data and logging data that should remain in the GOT
B drive: Store data such as Recipe files that can be frequently removed during operation

∗ : Either the CF card unit or the CF card extension unit can be used at a time.

- Using the new CF card extension unit attached to the front face of a panel, operators can insert/remove a CF card without opening the control panel. This greatly improves the machine operability.

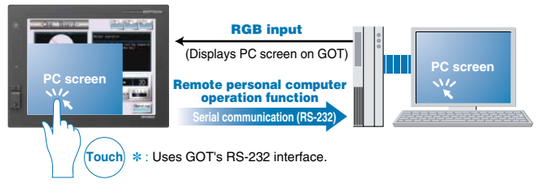
An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Touch-operating, the GOT enables personal computer operation

GT16 GT15 GOT1000 GRAPHIC OPERATION TERMINAL

Remote personal computer operation function

- When using RGB input, touch-operating the GOT can operate the personal computer screen displayed on the GOT (e.g. store the information such as touched coordinates in GOT internal devices, transmit the data to a personal computer).



∗ : Uses GOT's RS-232 interface.

Compatible Windows OS: Windows® XP Professional SP2, Windows® XP Home Edition SP2, Windows® 2000 Professional SP4

∗ : Supported only on the GT1585V and GT1575V models in the GT15 series.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

External notification of touch status (GT16/GT15/GT11)

- The information such as coordinates touched and whether touched or not is stored in GOT internal devices.
- Applicable in various ways of use when combined with other functions.

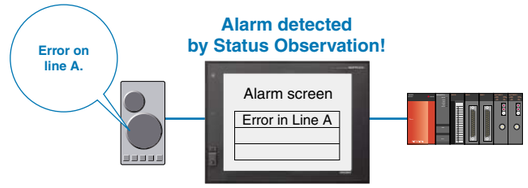
(Example) Combined with the parts move function, a part object moves to the position touched.

Sound notification of alarms

GT16 GT15 GOT1000 GRAPHIC OPERATION TERMINAL

Sound output function

- By connecting a speaker, the GOT can play WAV sound files (8kHz, 16bit mono) synchronized with device operation.
- Synchronized with alarms, audio error notifications quickly notify operators of problems.



∗ : A speaker with a built-in amplifier must be used. (Compatible jack: f3.5 stereo mini-jack, straight type)

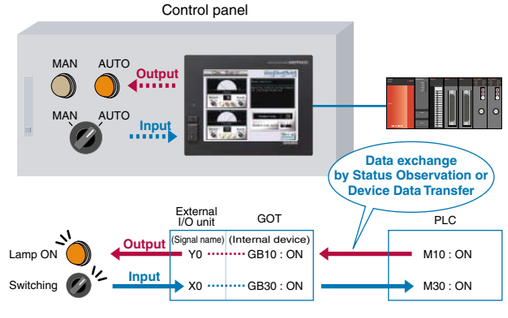
An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Direct connection to I/O devices simplifies your system

GT16 GT15 GOT1000 GRAPHIC OPERATION TERMINAL

External I/O function

- Connecting various I/O devices (e.g. hard switches, lamps, sensors, relays) directly to the GOT can reduce PLC I/O connections and wiring in order to reduce the cost of your system.
- A user-created operation panel can be connected to use Numerical Input and ASCII Input without displaying key windows on the GOT screen.
- In addition to the positive-common input/sink type output unit, a negative-common/source type output unit is now available on the market. NEW



∗ : An internal device is assigned to a signal in advance.

<Input: Max. 128 device points (16 input points × 8 scanning points = 128 points), Output: Max. 16 points>

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Transfers operation data in production lines in real time to host information systems.
Sophisticated information link improves productivity.

For designers

Be alerted to worksite errors and collect device data from an office desk

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

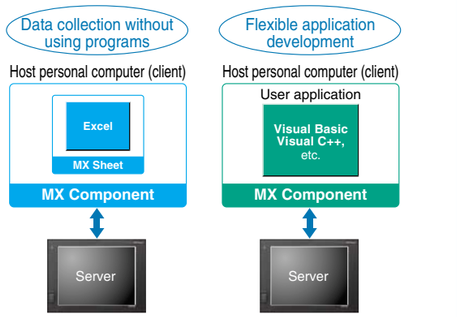
Gateway function

The gateway function remotely monitors the worksite and supports remote maintenance from the office.

1 Collect data on a personal computer (server function)

- A GOT (server) can be monitored from the host personal computer (MX Component) to perform indirect reading/writing of connected devices being monitored by the GOT.
- Even when monitoring third party devices, the server function can be used to perform reading/writing with the MX Component alone.

∗ : The collected data can be displayed and analyzed by Excel without using any programs other than MX sheet. Programming Visual C++ and Visual Basic enables applications to be flexibly designed and built.



∗ : For more details, refer to the MELSOFT catalog (L (NA) 08008).

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

2 Monitor other GOTs from a GOT (client function)

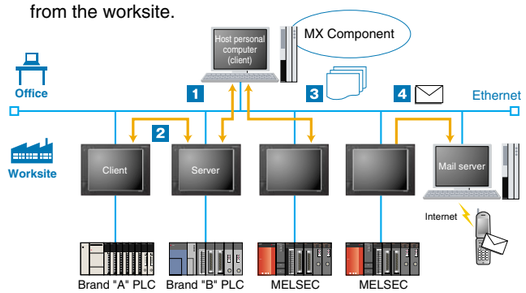
- A GOT (client) indirectly reads/writes device values of equipment monitored by the GOT (server).
- The client function can also be used to indirectly read/write device values of PLC CPUs other than the one to which the GOT (client) is connected.
- Communication is possible between a GOT1000 and a GOT-A900.

3 Direct check/edit of data in CF card (FTP server function)

- Files in the CF card within the GOT (e.g. alarms, recipes, and hard copies) can be directly read and written from a personal computer.
- No need to visit all factories to collect CF cards from all GOTs when there are multiple GOTs or when a GOT is located far away from the personal computer.

4 Mail send function

- The alarm history display function can transmit alarm occurrences and recovery information by e-mail to personal computers and mobile phones.
- Error information can be checked from locations far away from the worksite.



Database linkage supports enhances productivity at your worksite

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

MES interface function

The GOT transmits data from connected FA devices to the server personal computer database via SQL statements.

- For communication with the database, just specify the necessary data in GT Designer2 without programming. There is no need to use a gateway personal computer and complicated programs to communicate with the MES database server.
- If an error occurs during communication with the database, buffering of the transmission data (SQL statement) and recording of an error log are possible. Important data can be protected, and errors can be analyzed.
- When trigger conditions are met, the actions (data calculation and transmission) are stored in the buffer. The GOT can securely execute actions without any omission even if data sending is concentrated temporarily and actions cannot be executed immediately.
- When trigger conditions are met, you can write the resource data of advanced alarms, logging, and operation logs in a database. A vast quantity of data is efficiently controllable with the database.

MES interface function

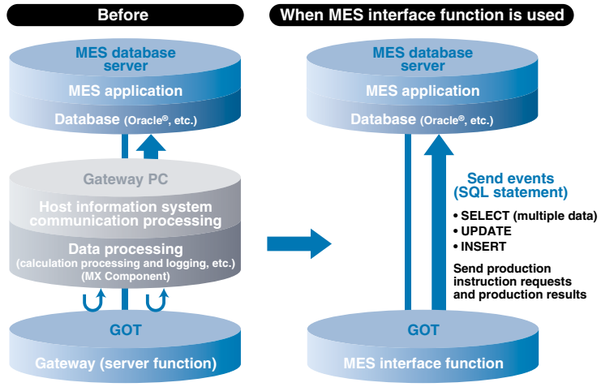
- DB link function (tag function / trigger buffering function / trigger monitor function / SQL statement transmission function <SELECT / SELECT multiple data / UPDATE / INSERT> / calculation processing function / program execution function / DB buffering function)
- SNTP time synchronization function
- Resource data transmission function • Diagnosis function
- DB server function (ODBC connection function / connection setting function / log output function)

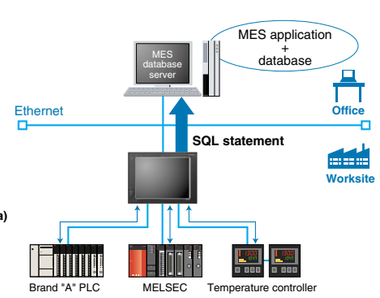
Usable databases∗

- Oracle® 8i/9i/10g • Microsoft® Access 2000/2003/2007
- Microsoft® SQL Server 2000/2005
- Microsoft® SQL Server 2000 Desktop Engine (MSDE2000)
- Wonderware® Historian 9.0

∗ : Compatible only with 32-bit versions.

<MES (Manufacturing Execution System)>
A manufacturing execution system (MES) is a system which controls and manages the production processes at a worksite in order to optimize quality, productivity, delivery date, and cost.





e-F@ctory

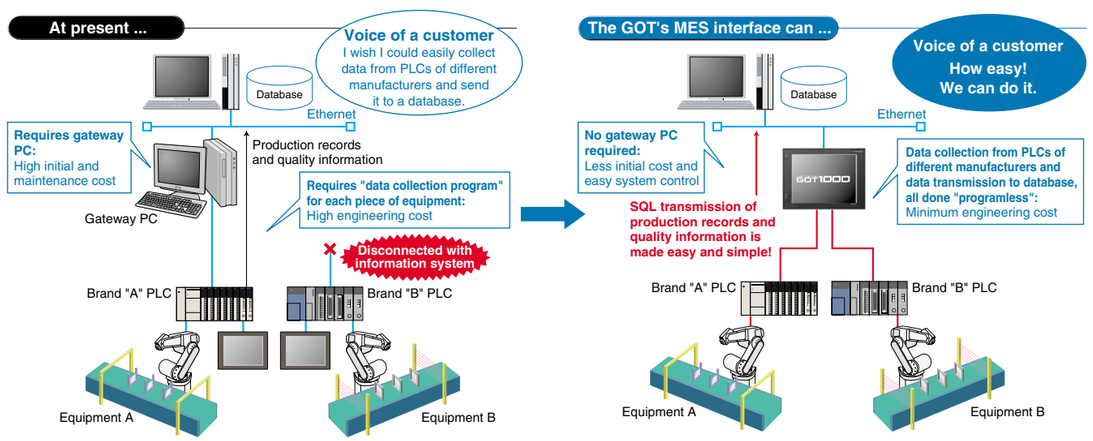
Mitsubishi Electric e-F@ctory presents the appropriate products to connect production information and MES (manufacturing execution system) to improve productivity of clients' plants.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

MES interface function – case examples

Simply and easily forms an information system at the worksite consisting of units and equipment from different manufacturers

Minimizes initial installation & maintenance cost



A screen design software with many user-oriented functions, making custom screen creation easy

For designers

MELSOFT GT Designer 2 Version2

Cut screen drawing time in half*

*: Compared with Mitsubishi Electric's GT Designer

Reduced screen drawing time | **Windows® standard operation and menu configuration** | **Data compatibility with GT Designer**

Efficient screen creation, even when there are many screens

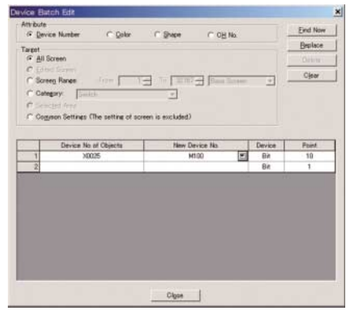
Drawing screen (editor)

- The area for designing GOT screens.
- A set maximum number of screens can be opened simultaneously (up to 25 screens). When additional screens are opened, screens starting from the first opened screen are closed.

Conversion of multiple objects and figures at the same time

Batch conversion

- Device numbers, objects, figure colors, and lamp and touch switch figures can be converted at the same time.
- This tool is useful for changing objects and figures located on multiple screens.
- Different types of objects (touch switches and numerical displays) and figures (circles and rectangles) can also be converted simultaneously.



An intuitive tree display makes copying, deleting, and component registration easy

Workspace

Project workspace

The entire project settings such as the created screens and common settings can be shown in a tree view. It is easy to see the entire project so the screen to be edited can be selected quickly.

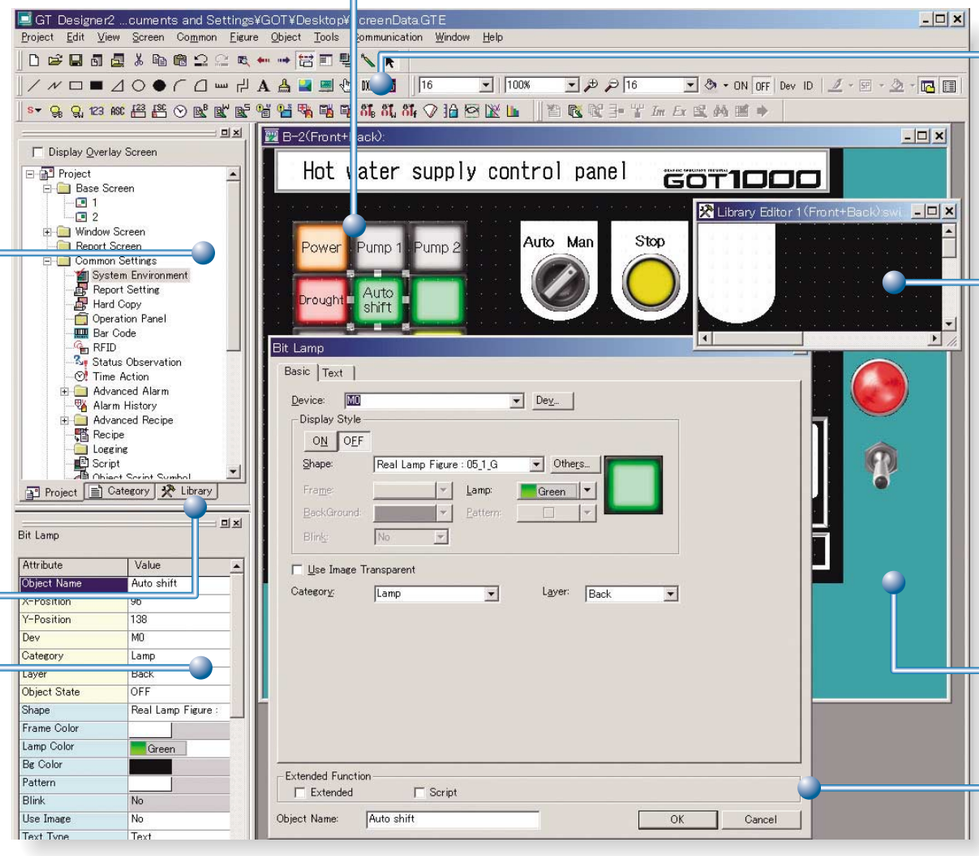
Category work space

The entire project settings can be displayed in categories in a tree view. The devices, colors, and figures of components in multiple screens can be adjusted all at once by category.

*: "Category" refers to objects or figures that have been grouped according to purpose.

Library workspace

Registered objects and figures are displayed in a tree view. Frequently used components can be registered as "favorites," permitting quick access to an object or figure.



Icon display improves work efficiency

Tool bar

- Various tool bars are available such as Figure, Object, View, and My Favorites.
- Icons show object, figure type, and operation at a glance, improving work efficiency.
- Frequently used objects and figures can be registered as My Favorites.

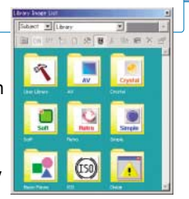
Dedicated component editing screen

Library editor

- A component editing screen appears by double-clicking a registered component within the library workspace.
- Editing registered components is quick and easy.

Image display of registered components

Library image list



- Registered components can be shown by image color, making it easy to find the component to be used.
- Designing screens is made easy by selecting components from the image list and putting them on the drawing screen.

Smoother screen design

Temporary area

- Placing objects in the temporary area facilitates smoother screen design and screen layout change operations.

Dialog box

List display of object & figure attributes

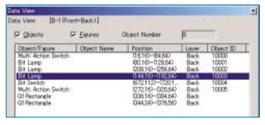
Property sheet

- An attributes list can be displayed for the selected object or figure.
- Object settings can be changed without opening the dialog box.
- Multiple objects and figures of the same type can be selected, and their color and character size can be adjusted at the same time.

Easy to select overlapped figures

Data list

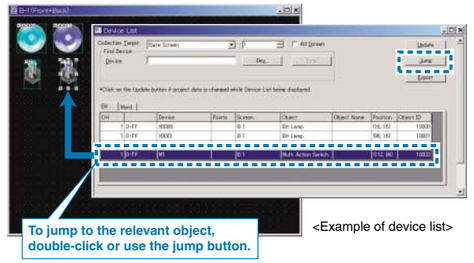
- All objects and figures located on the screen are listed.
- Data can be edited by double-clicking the object or figure from the list.



Device search jump for increasing work efficiency

Device list / Character strings list NEW

- Devices used in the screen or in the project are displayed in a list. <Device list>
- Lists the character strings of the text assigned to figures and objects. < Character strings list NEW >
- Double-clicking on a selected result jumps to the relevant object.



<Example of device list>

The latest developments and functions of GT Designer2

MELSOFT GT Designer 2 Version2

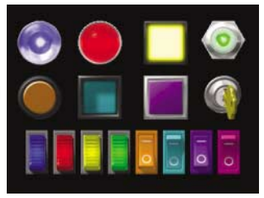
For designers

Crystal clear display, easy-to-create screens

GOT1000 GRAPHIC OPERATION TERMINAL

High-quality parts library

- User library can be easily imported.
- A variety of styles and designs are available for touch switches and lamps, easily permitting customized designs.
- All users can easily design sophisticated screens by using high-quality parts.



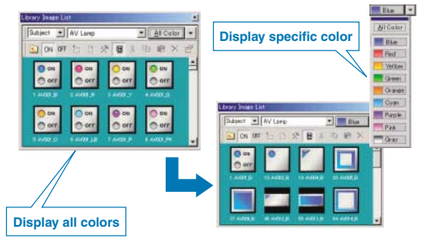
Real parts are now available

A variety of colors and an easy-to-use library

GOT1000 GRAPHIC OPERATION TERMINAL

Library color selection function

- Library images can be displayed by color. The new sort method helps users quickly look for the image to be used.



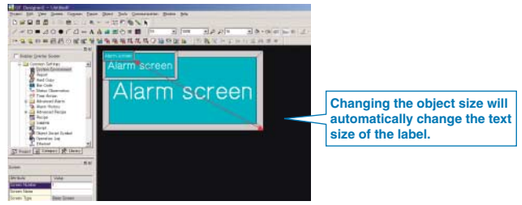
Convenient when converting different screen size data

GOT1000 GRAPHIC OPERATION TERMINAL

Automatic size adjustment of direct input characters

- When changing the object size, directly entered characters are automatically adjusted according to the object size.

<Supported objects> • Touch switches, lamps

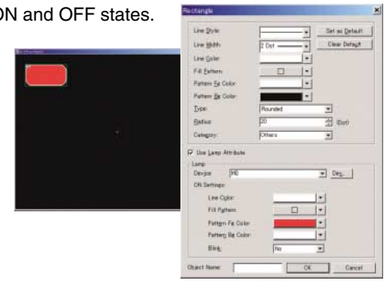


Easily create lamps from figures

GOT1000 GRAPHIC OPERATION TERMINAL

Lamp attribute added to figures

- Figures can be changed into lamps by setting colors and patterns for ON and OFF states.



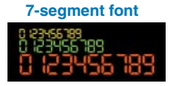
Elegant characters in any font and size

GOT1000 GRAPHIC OPERATION TERMINAL

An assortment of fonts allows for more expression

- The Unicode2.1 compatible standard font, high-quality font, and TrueType font display sharp and attractive characters in all languages.
- The TrueType number fonts enable seven-segment display. NEW
- When using a Windows® font, the font style (italic, underline, italic underline) can also be specified.
- Since the curve of stroke fonts are clear even if it is enlarged or reduced, the font size can be incrementally adjusted. Japanese, Thai and Chinese (Simplified and Traditional) are available.

7-segment font



Stroke font

Thai

Chinese (Traditional)

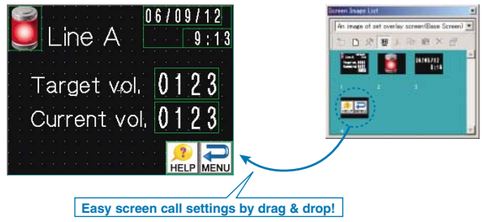
✻ : The stroke fonts are for the GT16 and GT15 only.

Selecting screens from a thumbnail list improves your work efficiency

GOT1000 GRAPHIC OPERATION TERMINAL

Screen image list

- Screen image list displays all base screens and window screens, and allows users to copy or delete screens and change the screen numbers. Double-click on a thumbnail image to edit the screen.



Efficient screen creation when changing the screen size or resolution

GOT1000 GRAPHIC OPERATION TERMINAL

Automatic object size change

- All figures and objects can be resized according to the GOT Type to be converted. This function makes the adjustment of screen sizes a lot easier.

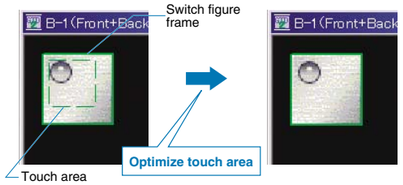
✻ : The multiple data enlargement/reduction function is convenient for making fine adjustments to the size of objects following a screen size change.

Optimized touch area of switches

GOT1000 GRAPHIC OPERATION TERMINAL

Touch area fit-in function

- Optimize the touch area (valid area) of a switch according to the figure frame. The touch area can be maximized within the switch figure frame.
- A new mode is added to hide the touch area. Users can select whether to display or to hide the touch area of switches.



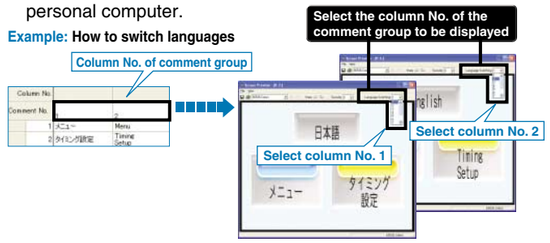
Easy confirmation of screen display

GOT1000 GRAPHIC OPERATION TERMINAL

Screen preview

- Language switching, security level change and on/off image switching of objects can be checked with GT Designer2 on a personal computer.

Example: How to switch languages

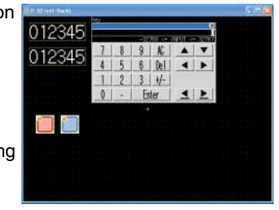


Display of the actual GOT screen

GOT1000 GRAPHIC OPERATION TERMINAL

Window preview

- The screen design software can display window screens (key windows, overlapping windows, superimposed windows) just as they would appear on the GOT, allowing them to be previewed.
- The key pad can be displayed just as it would appear on the GOT, allowing its position, size, appearance, etc., to be checked.

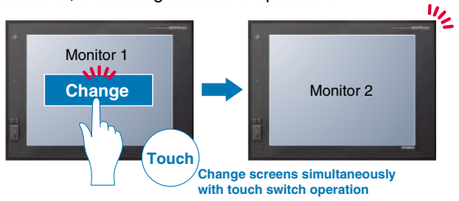


Enhanced functionality including F900 compatible functions (ex. Synchronized screen change)

GOT1000 GRAPHIC OPERATION TERMINAL

Complete conversion of GOT-F900 series data

- Changing screens is now synchronized with touch switch operations, increasing comfort of operation.



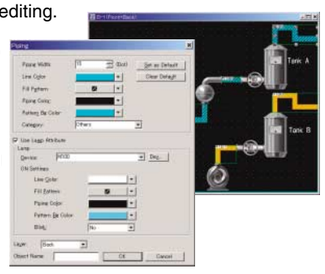
- Auto-repeat function that runs on specified intervals.

Easy creation of piping graphics

GOT1000 GRAPHIC OPERATION TERMINAL

Piping figure

- Piping graphics can be created in the same way as free form lines with easy apex editing.
- Piping width, pattern, and color can be specified.
- Lamp attributes can be specified, enabling ON/OFF and blinking displays.



Flexible screen design and data use functions provide smooth and comfortable operation

MELSOFT GT Designer2 Version2

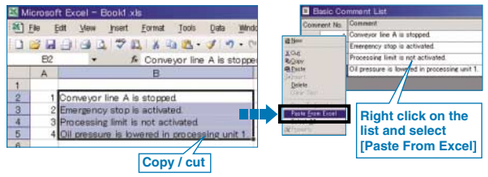
For designers

Easy comment registration using Microsoft® Excel

GOT1000 GRAPHIC OPERATION TERMINAL

Comment registration

- The comments selected on Excel can be copied/cut and pasted into the comment list.
- Comments selected on the comment list can also be copied/cut and pasted into an Excel sheet.

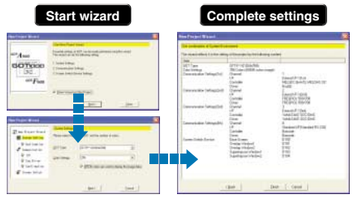


User-friendly setting procedure puts even beginners at ease

GOT1000 GRAPHIC OPERATION TERMINAL

Wizard function

- When creating a new project, the GOT type, the number of colors, communication configuration, and other settings can be interactively set in order.
- All the required settings on GOT can be smoothly set by using the Wizard function.



Make the most out of existing GOT projects

GOT1000 GRAPHIC OPERATION TERMINAL

Backward compatibility

- GOT900→GOT1000 compatibility
  Simply changing the GOT type with the GT Designer2 enables the project data for the GOT900 to be used with GOT1000.
- GOT800→GOT1000 compatibility
  GOT800 project data can be converted into data for the GOT1000 with GT Converter2.

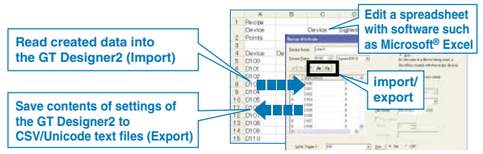
✻ : Backward compatibility does not extend to certain data and functions.

Higher efficiency by using familiar software

GOT1000 GRAPHIC OPERATION TERMINAL

Improved import/export function

- Device data, range settings, device values, and comments, which have been created in a CSV/Unicode text file format, can easily be imported/exported to/from GT Designer2.
- This function is useful to import a large amount of data such as logging, advanced recipes, recipes, and comments.



Better project data maintenance efficiency

GOT1000 GRAPHIC OPERATION TERMINAL

Project data consistency check function

- Consistency checks between the GOT's project data and the personal computer project data can be performed.
- This allows project data inconsistencies to be identified, thereby reducing unnecessary uploads and downloads.

Easy project data conversion GT Converter2 Version2

- This software converts project data created with older screen design software to the data for GT Designer2 (GOT1000 or GOT-A900). (Included with GT Works2 and GT Designer2)
- Supported screen design software
  - GOT800 series screen design software (SW3NIW-A8GOTP)
  - ProFace drawing software (GP-PRO/PB Ⅲ series)

✻ : Backward compatibility does not extend to certain data and functions.

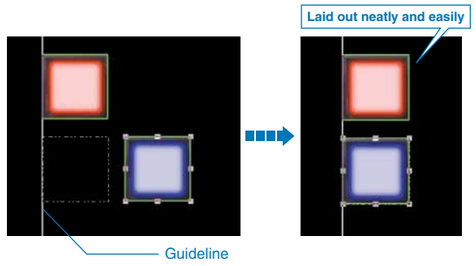
Lays out objects and figures neatly

NEW

GOT1000 GRAPHIC OPERATION TERMINAL

Guideline

- Simply lay out the graphics and objects along the guidelines, and you can align and position them easily and neatly.

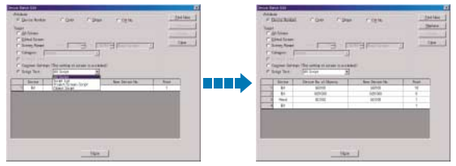


Able to search/convert devices in script – high efficiency

GOT1000 GRAPHIC OPERATION TERMINAL

Device list / batch device conversion Version upgrade

- Listing devices used in a script and batch conversion of device numbers are available, increasing editing efficiency.
- Reading out other project data that corresponds to the script, improving data sharing.



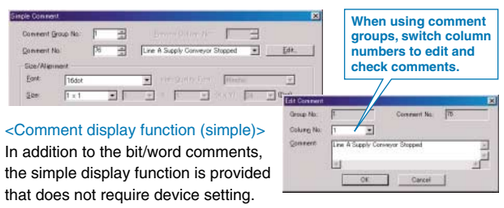
<Example of batch device conversion in script>

Efficient, as you can edit comments on the spot

GOT1000 GRAPHIC OPERATION TERMINAL

Editing comments on dialog screen

- Enables editing comments of the basic comment and comment groups directly from the attribute dialog box of touch switches, lamps, and comments.
- Quickly editing comments on the spot greatly improves work efficiency.



<Comment display function (simple)>
In addition to the bit/word comments, the simple display function is provided that does not require device setting.

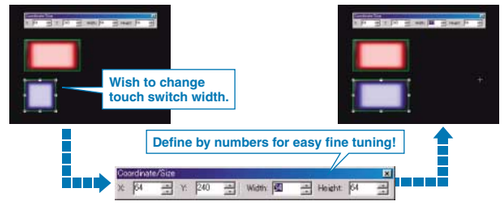
Easy to fine-tune sizes of objects and figures

NEW

GOT1000 GRAPHIC OPERATION TERMINAL

Define the width/height of objects and figures numerically

- Use the toolbars and property sheets to define the X and Y coordinates, width and height of objects and figures. You can easily fine-tune the sizes dot by dot, which is otherwise difficult with a mouse.



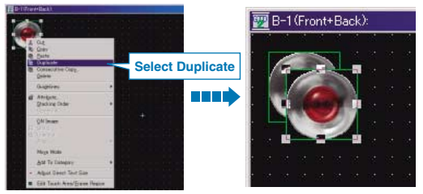
Duplication makes it easy to create objects

NEW

GOT1000 GRAPHIC OPERATION TERMINAL

Duplication of object

- "Duplicate NEW " and "Consecutive copy" are added to the context menu that is prompted by right click on the editor screen.
- "Duplicate" is a function to copy and paste at the same time, quickly creating figures and objects of the same configuration.

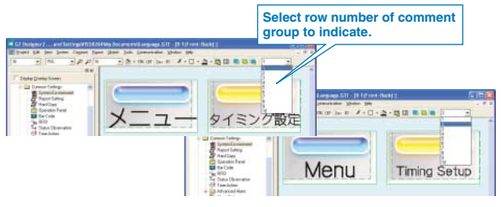


You can conveniently switch columns of a comment group during editing

GOT1000 GRAPHIC OPERATION TERMINAL

Indication of switching languages on editor

- When using the function to switch languages, you can switch the column numbers of comment groups on the editor to check the indication.
- Check the size and the layout of objects easily while creating a screen.



Convenient software programs are available to support designers

For designers

GT Designer2 Version2

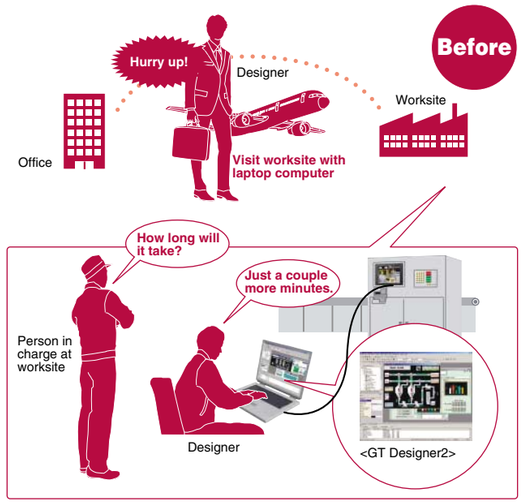
Fast and simple data transfer tool considerably improves work efficiency

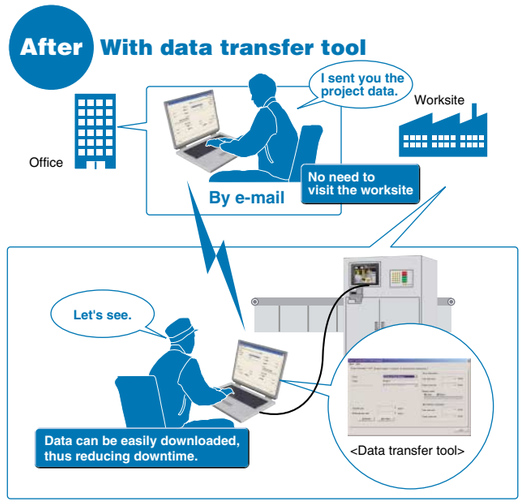
GOT1000 GRAPHIC OPERATION TERMINAL

Data transfer tool

The data transfer tool, dedicated for project data upload/download, is included with GT Works2 and GT Designer2.

- Even in environments without screen design software, the data transfer tool can be used to download/upload GOT project data, and to upload resource data (e.g. alarm log files).
- Even at worksites without screen design software, or when a sudden problem occurs, data can easily be downloaded/uploaded by operators without special training, thereby minimizing the need for dispatching software designers to the worksite.





- Uploaded resource data binary files (advanced recipe files, data log files, and operation log files only) can be converted into CSV/Unicode text files. Advanced recipe files in the CSV/Unicode format can also be converted into binary files. NEW
- Compatible with a data transfer interface function. A user-created application program can download and upload the GOT series project data. NEW

Supported GOT model	GOT1000, GOT-A900, GOT-F900, GOT800
Supported data	Project data, resource data*(GOT1000 only)
Supported Windows OS	Windows Vista®, Windows® XP, Windows® 2000

*: Advanced alarm log files (advanced alarm), alarm log files (alarm history), advanced recipe files (advanced recipe), recipe files (recipe), data log files (logging), operation log files, image files (hard copy), and screen switching information files

A simple operation to create clear, sharp document images

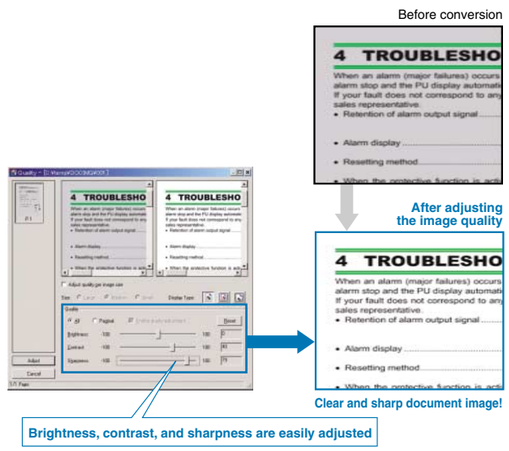
GOT1000 GRAPHIC OPERATION TERMINAL

Document converter

The document converter, converting files for use with the document display function, is included with GT Works2 and GT Designer2.

- When converting documents, the image quality of the documents (brightness, contrast, sharpness) can be adjusted.
- The document converter software creates clear and sharp document images.

*: For more details, see "Document display function" (page 45).
*: To use the document converter, Ghost Script GPL8.15 or later is needed. For more details, refer to the GT Designer2 Version 2 Screen Design Manual.



Time-saving debugging and simulation software

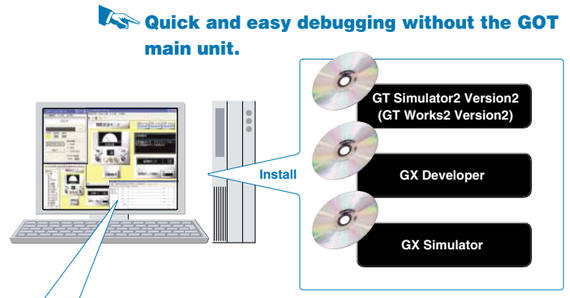
For designers

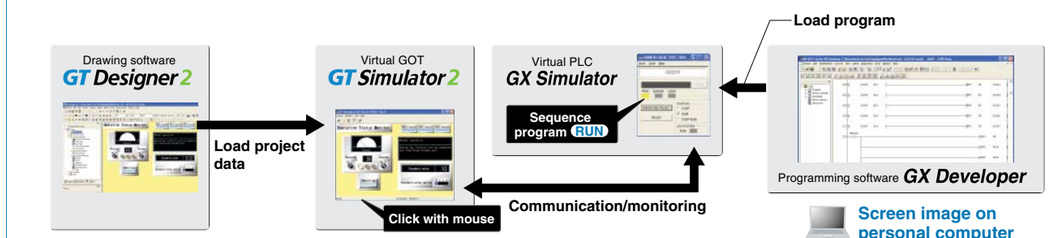
GT Simulator2 Version2

GT Simulator2 helps designers debug projects by simulating GOT operations on a personal computer. (Included with GT Works2)

Debugging from a single personal computer

- GT Simulator2 can be used in combination with a sequence program simulated by GX Simulator*, allowing debugging to be performed in an intuitive manner from a single personal computer.
  *: QnUD(E)(H)CPU/FX3G is not supported.
- The GT Simulator2 screen debugging function permits screen editing in GT Designer2 with the results immediately verifiable in GT Simulator2, thereby greatly reducing debugging man-hours.
- The touch switch input is simulated by clicking the mouse. In addition to monitoring devices, GT Simulator2 can be used to check stored data such as system alarms, script error information, and alarm history.



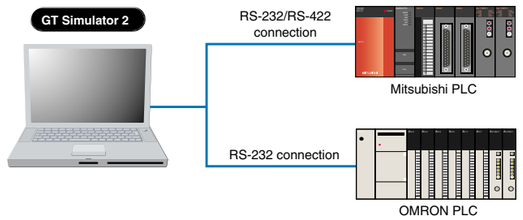


Debugging is possible by connection with a PLC, without actual GOT operation required

- Debugging can be performed using a direct CPU connection between a personal computer (GT Simulator2) and a Mitsubishi or Omron PLC, without an actual GOT unit.

Connectable PLC	PLC ⇔ Personal computer connection
Mitsubishi PLC (Q*/QnA/A/FX series)	CPU direct connection RS-232, RS-422
Mitsubishi CNC (MELDAS C6/C64)	
OMRON PLC	CPU direct connection RS-232

*: QnUD(E)(H)CPU/FX3G is not supported.



Powerful support of customer specifications, compatibility checks, and document creation

- While observing the operation image, the customer's screen specifications can be arranged without actual unit operation.
- Screen snapshots can be printed and saved as BMP/JPEG files which are extremely useful when creating specifications and operation manuals.

Quick response and useful standard functions provide users with comfortable operation

For operators

Dramatically improved GOT total response

GOT1000 GRAPHIC OPERATION TERMINAL

Drawing, computing, communication; a trio of high-speed response functions

The GOT1000 series offers faster response in drawing, computing and communication, reducing monitoring and operation stress.

High-speed drawing

- Sharp and quick drawing of complex, layered component screens, and detailed photographic data in 65,536 colors.
- The GT16 further speeds up the drawing operation. NEW

High-speed computing

- Ultra-high performance processing power to satisfy the most complex and demanding of applications.

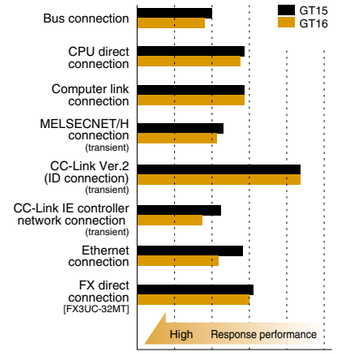
High-speed communication

- Greatly improved response performance.
- GT16, GT15, and GT11 offer high-speed communication through the bus connection.
- High-speed communication is possible for connections with both Mitsubishi and third party PLCs.

✻ : For connectable PLC models, see "List of connectable models" (page 62).

GT16/GT15 response performance comparison

[Using MELSEC Q series] As of August 2008



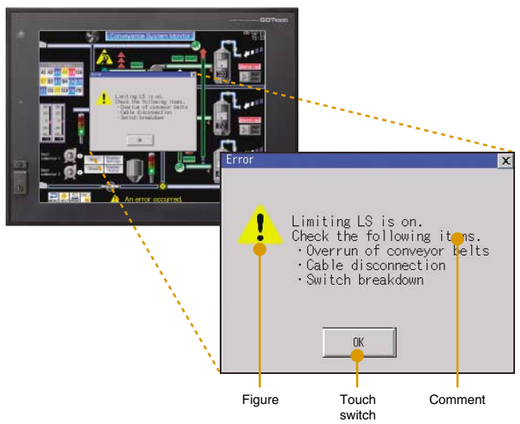
The monitor screen includes about 250 points of word devices.

Customized dialog windows showing custom messages to operators

GOT1000 GRAPHIC OPERATION TERMINAL

Dialog window function

- Instead of using system dialogs (e.g. input error at numerical input), users can customize dialogs to display help on user operations or troubleshooting messages when alarms occur.
- With templates such as icons and an OK button, users can easily create dialogs with the wizard function.



Easy switching between different languages to globalize your production site

GOT1000 GRAPHIC OPERATION TERMINAL

Display in different world languages

- The Unicode2.1 compatible standard font, high-quality font, and TrueType font display sharp and attractive characters in all languages.
- The language displayed on the GOT main unit utility screen can be set to Japanese, English, Chinese (Simplified/ Traditional✻), Korean (Hangul), or German.

✻ : Traditional Chinese can be displayed only on the GT16 and GT15.

Chinese (Traditional)

German

To minimize production time, the GOT provides the user with worksite-required functions

For initial startup & adjustment operators

Easy data transmission without opening the cabinet

GOT1000 GRAPHIC OPERATION TERMINAL

Equipped with front USB interface

- The front USB interface allows a programming cable to be connected without having to open the cabinet.
- Data transmission using the USB interface (up to 12Mbps) greatly reduces the time required for startup and adjustment.
- The environmentally protective USB port cover complies with the IP67f standard.✻
  ✻ : Compliance cannot be guaranteed in all customer environments.

✻ : To connect the GOT to a personal computer, use the dedicated USB cable. For more details, see "Product list" (page 86).

With USB cable

✻ : The GT16 has a USB device and USB host as standard features. The GT15 and GT11 have a USB device only as a standard feature.

With USB environmentally protective cover installed (standard feature) IP67f

✻ : For the GT15 and GT11, it is fastened with a coin-type screw.

Sequence program and parameters can easily be modified at the worksite

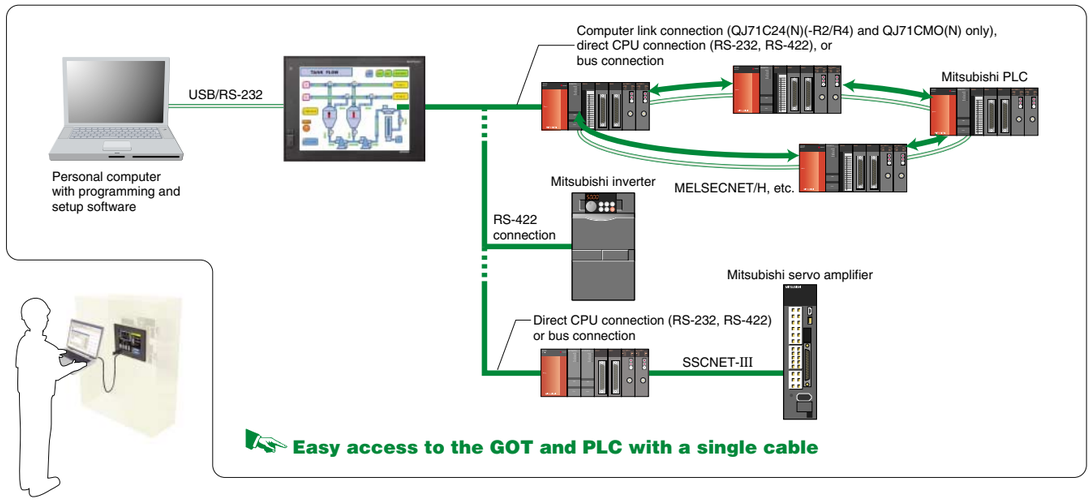
GOT1000 GRAPHIC OPERATION TERMINAL

FA transparent function

- Connected with a personal computer, the GOT through itself enables to program, start up, and adjust FA equipment.
- Users do not have to bother themselves to open the cabinet or change cable connections. (When using the UBS interface)
- When multiple FA devices are connected, the communication target can be changed on the GOT main unit using the multi-channel function. (For the GT16 and GT15)

- Supported software✻
  - GX Developer
    Q/QnA/A/FXCPU, motion controller (A series)
  - GX Configurator
    Intelligent function module for the Q series (AD/DA/SC/CT/TC/TI/FL/PT/AS)
  - PX Developer
    Process control CPU (Q02PH/Q06PH/Q12PH/Q25PHCPU) Redundant CPU (Q12PRH/Q25PRHCPU)
  - MT Developer
    Motion controller (Q series)
  - MR Configurator
    Q172HCPU(-T)/Q173HCPU(-T)+MR-J3-□B (SSCNETIII)
  - FR Configurator
    FREQROL A700/F700/E700
  - FX Configurator-FP
    FXCPU
  - RT ToolBox2 NEW
    CRnQ-700

✻ : The version of the software depends on the system configuration.
✻ : For the software access range when using the FA transparent function, refer to the manual for the software being used.



Accurate communication minimizes machine downtime even during an alarm

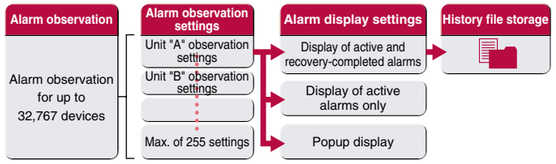
GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Advanced alarm

1 A wider monitoring range protects even large-scale systems

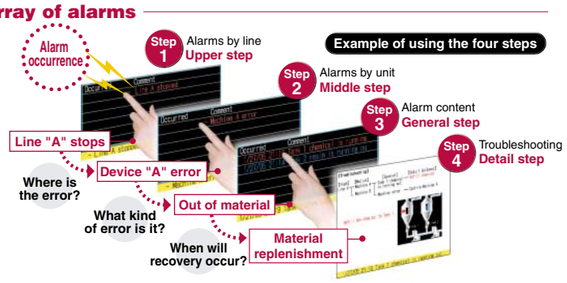
- Alarm observation is possible for up to 32,767 devices with a maximum of 255 alarm observation setting groups.
- Three types of alarm displays can be specified for a single alarm observation setting.
- Up to 32,767 alarms can be saved in the alarm history.
- Batch display of large amounts of alarm information in large-scale systems, and unit-specific classification for easy management.



2 Rapid detection and corrective action for a wide array of alarms

Four-step alarm notification

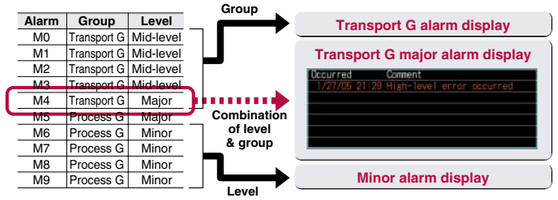
- Alarm occurrence conditions can be divided into 4 steps and conveyed to the operator in an easy-to-understand, step-by-step format.
- The four-step display makes it easy to take in and sort out alarm conditions (information such as where, what, and how). This enables efficient troubleshooting when multiple problems occur.
- The contents of the 4 steps shown above can be freely defined to suit the application in question, with switching between the step displays performed by the step switching device or by touch-screen operation.



Group-specific & level-specific displays

- Alarms can be classified by group and level, with only the specified alarms being displayed.
- This makes it easy to identify the locations and types of alarms even when many alarms have occurred, and permits higher priority alarms to be handled first, resulting in a speedy system recovery.

Alarm	Group	Level
M0	Transport G	Mid-level
M1	Transport G	Mid-level
M2	Transport G	Mid-level
M3	Transport G	Mid-level
M4	Transport G	Major
M5	Process G	Major
M6	Process G	Minor
M7	Process G	Minor
M8	Process G	Minor
M9	Process G	Minor



3 Easy-to-understand display

- The use of colors and popups produce easily recognizable alarm displays.
- Ensuring that alarms are not overlooked and that the alarm contents are understood, results in a speedy system recovery.

Display subject switching
Display switching can display only active alarms or all contents.

Comment display color
Comment display colors can be specified for each alarm status (occurred, restored, and checked) and for each level and group, etc.

Sorting
A sorting function permits the display order to be changed such as date & time, level, group, alarm status, occurrence count, and downtime.

Cursor display color
The cursor display color can be specified. Alarm displays are harder to miss, and the freedom of screen design has been increased.

Floating alarm display
Permits the entire text of long comments which cannot be contained in the display area to be read.

Details display
Users can create window screens freely to display details.
JPEG images can also be displayed.

Alarm popup display
A popup display format ensures that user alarms and system alarms are not missed. The background color can be specified.

4 Improved system alarms

- The PLC/GOT/Network monitoring subject can be specified in advance, with only those specified alarms being displayed.
- It can be set so that only the active alarms are displayed. Alarm history display and history file storage are also possible.

5 Support in identifying alarm causes (utility function)

- Alarm occurrence conditions can be displayed in time-series graph form.
- Alarm occurrence counts can be displayed in bar-graph form.
- A graphical statistics display facilitates efficient analysis of error causes.

Display various documents on the GOT at the worksite

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

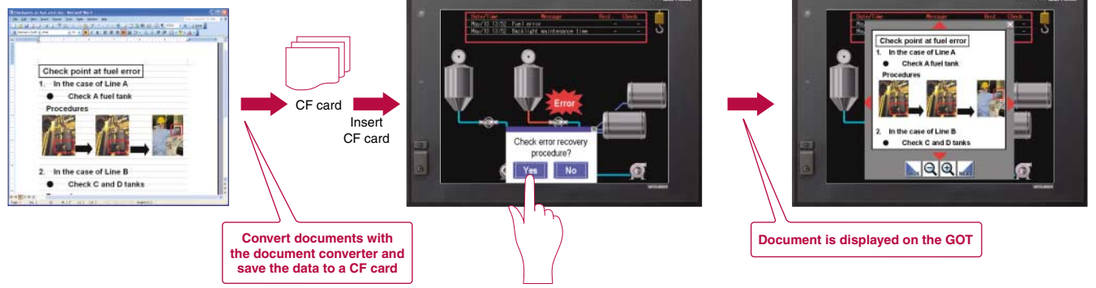
Document display function

- When a system error occurs, referring to recovery methods in check lists and/or manuals on the GOT can reduce downtime.
- Even if there is no personal computer at the worksite, operation guidance and work instructions can be displayed on the GOT.

- Pages can be changed, scrolled through, enlarged or reduced, and multi-page documents can be displayed.
- Document converter* is used to format documents to be displayed and save them to CF cards as JPEG files.

*: For more details, see "Document converter" (page 40).

- Documents created by applications such as Microsoft® Word can be used, reducing the man-hours for screen design.
  • Supported file formats: doc, xls, ppt, pdf, jpg, bmp
- The brightness and contrast of difficult to read documents can be adjusted when the documents are converted with the document converter to facilitate better viewing on the GOT.



Display of documents and manuals on the GOT can reduce downtime.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Of great help when the user senses a problem

NEW GT16

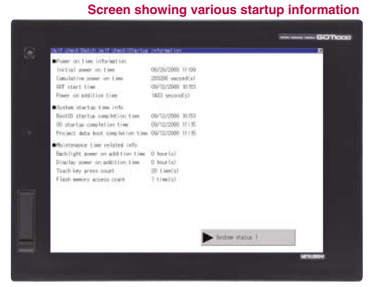
GOT1000 GRAPHIC OPERATION TERMINAL

Batch self check function

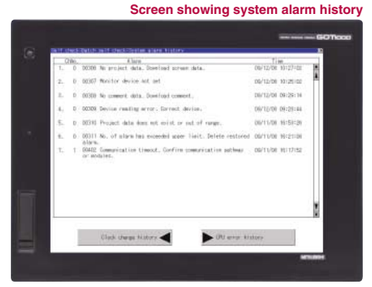
- Enables to easily check the GOT operation history on a utility screen, helping you to locate the cause of the problem.
- Even if not set up in advance by the GT Designer2, the utility screen shows the data for the user to check. It is useful in an emergency.

<Typical items available for check>
• History of switching screens and system alarms
• Time of starting and ending communications between the GOT and connected devices
• History of using download, upload, and FA transparent functions
• List of types and versions of the operating systems installed
• List of model names of the GOT and units installed

Screen showing various startup information



Screen showing system alarm history



GOT provides complete traceability for safe and secure operation

For maintenance personnel

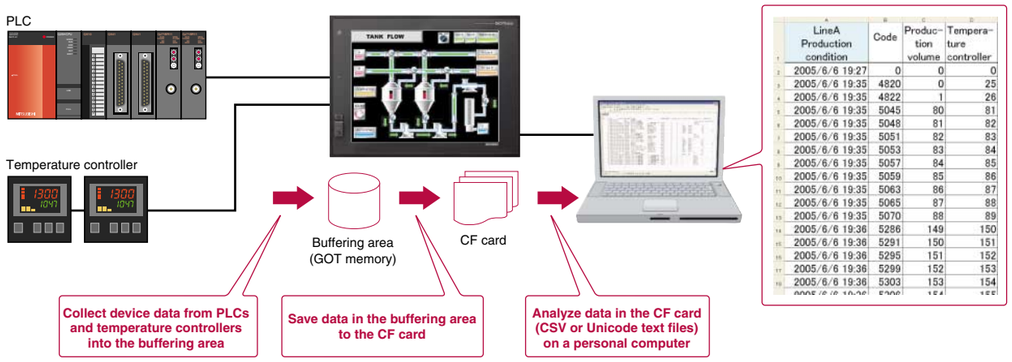
Smooth operation from the collection of various data to storage of time-series data

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Logging function

- Collecting data from temperature controllers and other units with the GOT can reduce the load on the PLC.
- Up to 250 devices per setting and 32 settings per project can be set.
- Collected data can be used for record and analytical purposes when being saved to a CF card.
- Files can be saved in the GOT dedicated binary file, CSV or Unicode text file formats.



	A	B	C	D
1	LineA Production condition	Code	Production volume	Temperature controller
2	2005/6/6 19:27	0	0	0
3	2005/6/6 19:35	4820	0	25
4	2005/6/6 19:35	4822	1	26
5	2005/6/6 19:35	5045	80	81
6	2005/6/6 19:35	5048	81	82
7	2005/6/6 19:35	5051	82	83
8	2005/6/6 19:35	5053	83	84
9	2005/6/6 19:35	5057	84	85
10	2005/6/6 19:35	5059	85	86
11	2005/6/6 19:35	5063	86	87
12	2005/6/6 19:35	5065	87	88
13	2005/6/6 19:35	5070	88	89
14	2005/6/6 19:36	5286	149	150
15	2005/6/6 19:36	5291	150	151
16	2005/6/6 19:36	5295	151	152
17	2005/6/6 19:36	5299	152	153
18	2005/6/6 19:36	5303	153	154

Easy-to-read logging data in a graphical display

GT16 GT15

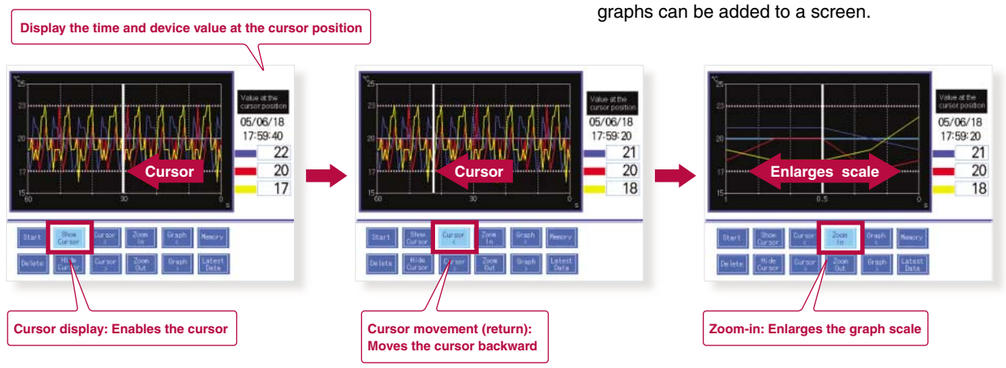
GOT1000 GRAPHIC OPERATION TERMINAL

Historical trend graph

- Data collected by the logging function can be displayed in a time-series graph from a CF card as well as from the buffering area.

✻ : Logging function settings are required to use historical trend graph.

- The data collected by the logging function can be displayed in graph form; the past data can be displayed simply by touching a scroll switch.
- Enabling the cursor displays the device value and time of the cursor position, and allows for enlargement or reduction of scale.
- Up to 32 data devices can be displayed in a graph; up to 8 graphs can be added to a screen.



Enhanced security system by password control

GT16 GT15

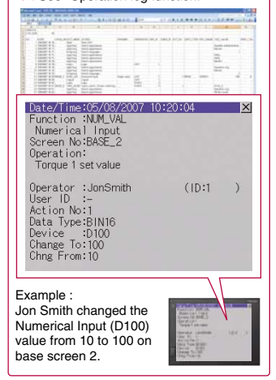
GOT1000 GRAPHIC OPERATION TERMINAL

Operator authentication function

- When starting up the GOT or switching screens, a login screen appears to authenticate the operator name and password. The display and operation screen depends on the operator logged-in so that security is strengthened.
- If there is no operation for a certain period of time after logging-in, the login screen appears again, and the password must be re-entered to start operation. This prevents unauthorized operation.
- It is possible to add operators and change passwords in the GOT main unit utility screen.

Combined with the operation log function, who, what, when, and how the operator operated can be recorded.

✻ : See "Operation log function."



Example :
Jon Smith changed the Numerical Input (D100) value from 10 to 100 on base screen 2.

Setting the level (authority) of operation and display for each operator can strengthen security and prevent operation errors.

Helpful for identification and analysis of problem causes

GT16 GT15

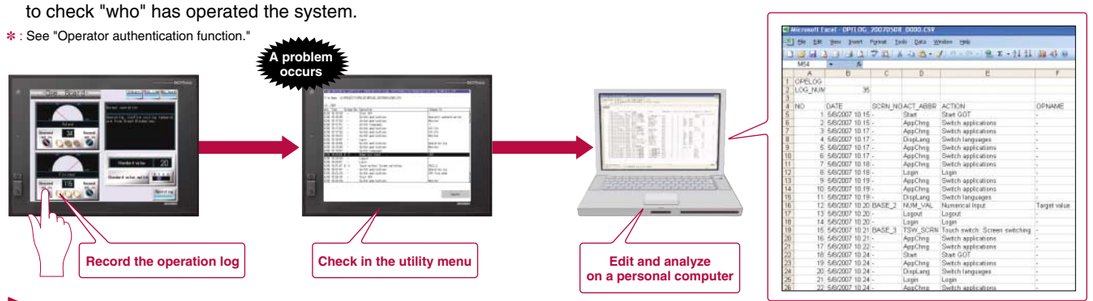
GOT1000 GRAPHIC OPERATION TERMINAL

Operation log function

- Operations performed by operators on the GOT can be recorded with respect to time.
- When problems occur (e.g. a system error), users can confirm when and how the operations were performed by referring to the operation log, using it to specify and analyze the cause of the error.
- Moreover, using the operator authentication function enables to check "who" has operated the system.

✻ : See "Operator authentication function."

- Users can specify which operations to save in the log by changing the device value and GOT operation state.
  <Specifiable operations>
  Touch switch operation, numerical input operation, security level change, screen change, etc.
- The operation log is saved in the CF card, and the data can be edited and analyzed on a personal computer. In addition, the data can also be displayed on the utility screen of the GOT main unit.



Refer to the operation log file, and investigate the problem cause.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Functions designed to support maintenance work significantly reduces downtime!

For maintenance personnel

Back up important sequence programs to be safe and secure in case of an emergency

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Backup/restoration function

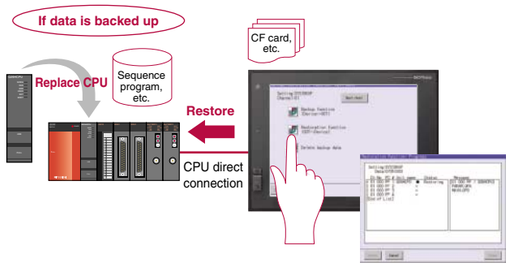
<Objective data> Programs, parameters, device comments, device initial value data, file registers, etc.
<Objective model> MELSEC Q-Series (excluding Q12PRH/Q25PRHCPU), Q-Series motion controllers (SV13/SV22 only), CNC C70
<Usable connection type> Bus connection, CPU direct connection, computer link connection, Ethernet connection (host only)

- The sequence program and parameter data of the PLC CPU and motion controller can be backed up to the CF card in the GOT.
- Automatic backups are possible by using a trigger device, or by specifying the time and day.
- Users can perform batch operation to restore the data to the PLC CPU or motion controller.

The backup data conversion tool is shipped with GT Works2 / GT Designer2.

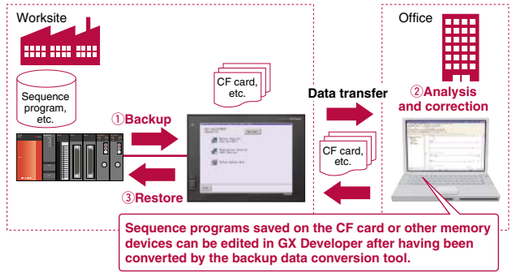
Example of use①

Make a data backup in preparation for the PLC or the CPU failure or a dead battery to quickly replace the faulty device and restore the system using the backup in such a case.



Example of use②

When a problem occurs, or when the PLC CPU program is updated, the sequence program data can be transferred, analyzed, and corrected without requiring an experienced engineer, increasing time and cost efficiency.



PLC CPU programs can be easily changed without a personal computer at the worksite or any previous GX Developer knowledge.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

✻ : When replacing the PLC CPU, the restoration function may not be available depending on the system configuration and connection type.

Easy-to recognize backlight state

GOT1000 GRAPHIC OPERATION TERMINAL

Color-coded front face LED

- The color of the LED on the front of the GOT unit indicates whether the backlight is OFF or has expired.

[Power LED: Color-coded message]

Green ON	When normal power is being applied	**Orange/green blinking**	When backlight life has expired
Orange ON	When in screen-save mode	**OFF**	When power is not being supplied

For planned commodity maintenance

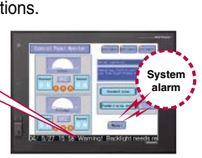
GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Maintenance time notification function

- The backlight ON time is automatically monitored, and the operator is notified when maintenance is required. This facilitates scheduled maintenance and prevents system malfunctions.

<Subject to be monitored> Backlight, display area, touch keys, and built-in flash memory



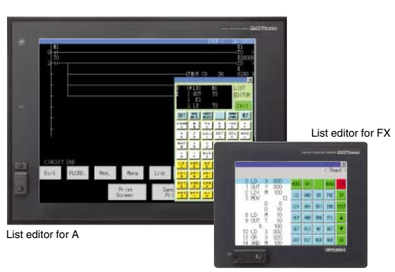
An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Convenient method for minor program changes onsite

GOT1000 GRAPHIC OPERATION TERMINAL

List editor for A/List editor for FX

- MELSEC-A series, FX series PLC sequence programs can be edited in a list format (instruction word).
- Permits minor program changes onsite, even without peripheral devices.
- With the ladder monitor function used together, the GT16 and GT15 can edit sequence programs while viewing the ladder data.



PLC device monitoring/changes

GOT1000 GRAPHIC OPERATION TERMINAL

System monitor function

- Mitsubishi PLC CPU devices can be monitored and changed.

✻ : Only monitoring, but not changing device values and other operations, is available with the QSCPU.

- Monitoring can be performed by selecting the device to be monitored, or by specifying the initial device.
- The current values and setting values of the timer (T) and counter (C) can be changed.
- The buffer memory (BM) of a special function unit can be monitored and changed.
- The display format (decimal/hexadecimal) and the device comment display status (on/off) can be switched.

Easy adjustment of Q series motion controller

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Q series motion monitor function

- Up to 3 Q-type motion controllers can be used on a single base, with monitoring and parameter settings possible.

<Objective models>
- Q172D/Q173DCPU
- Q172(N)/Q173(N)CPU
- Q172H/Q173HCPU

✻ : Supported only if the Q series motion controller CPU has SV13/SV22 OS version. Moreover, available functions of the Q series motion monitor vary according to the CPU type.

Easy-to-understand display of buffer memory values and I/O information

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Intelligent unit monitor function

- Buffer memory values of intelligent function units and the ON/OFF status of I/O units can be monitored and changed.
- When a QCPU (Q mode) or a QSCPU is in use, CPU operating status and existing errors can be monitored by PLC diagnosis.

✻ : Supported by the XGA/SVGA/VGA models.

At-a-glance monitoring of MELSECNET network status

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Network monitor function

- Enables to monitor the network line conditions of the CC-Link IE, MELSECNET/H, MELSECNET/10, and MELSECNET Ⅱ on the dedicated screen.
- Communication line and information from the host and other stations can be monitored to check the communication status.

Easy startup and adjustment of a servo amplifier

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Servo amplifier monitor function

- In a system which outputs pulse strings, the GOT can be connected to a servo amplifier in a serial connection to perform the following operations: setting up, monitoring, alarm display, diagnosis, parameter setting, and test operations.
- When multiple servo amplifiers are connected, monitor screens can be easily switched on a GOT by specifying station numbers.

✻ : Available monitoring functions vary according to the servo amplifier type.

Save space and cost when no dedicated display device is required

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

CNC monitor function / CNC data I/O function

CNC monitor function

- Connecting to a CNC (C70, C6/C64) enables functions such as position display and alarm diagnosis, and allows tool offset parameters to be set.

CNC data I/O function

- This function can be used to copy and delete CNC C70 work programs, parameters, etc.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

✻ : Supported by the XGA/SVGA models.

Extensive FA device compatibility reduces your maintenance work

For maintenance personnel

GOT Ladder Monitor Function is greatly improved with the One-Touch Ladder Jump function

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Ladder monitor function

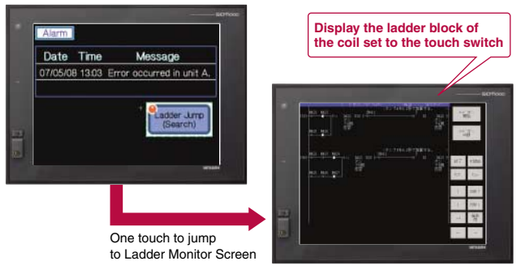
MELSEC Q/QS/QnA/A/FX series PLC sequence programs can be monitored in a circuit diagram (ladder format).

Wide monitoring range

- Not only the PLCs connected to the GOT, but also PLCs of other stations, multiple CPUs, multiple programs in the CPU, and local devices (Q series only) can be monitored.

One-Touch Ladder Jump function (Q/QnA series)

- By setting a program name and coil number of the PLC to a touch switch, the relative ladder circuit block can be displayed directly.



- For the touch switch, users can set the PLC station No., CPU No., program name, and coil No. The touch switch will then display the corresponding ladder blocks within the multiple programs that are contained in the PLCs connected to the GOT, other station PLCs, and multiple CPUs. Local devices can be monitored for the Q series PLC.

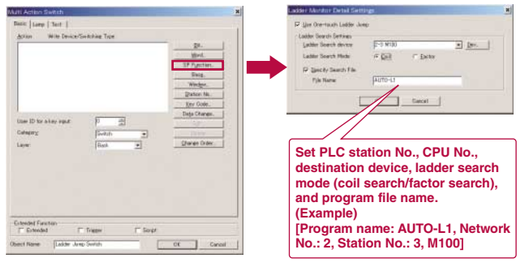
✻ : Supported by the XGA/SVGA/VGA models.
✻ : The QS series models can only monitor the data through the Q/QnA circuit. It cannot alter the device values, for instance.
✻ : FX3GCPU is not supported.

Device comments are stored in the GOT CF card (Q/QnA series)

- Since the comment data of sequence programs can be stored in the GOT CF card to be displayed in the Ladder Monitor screen, the PLC memory used is greatly reduced.
- Device comments in the sequence programs written in Korean (Hangul) characters can also be displayed.

How to use the One-Touch Ladder Jump function

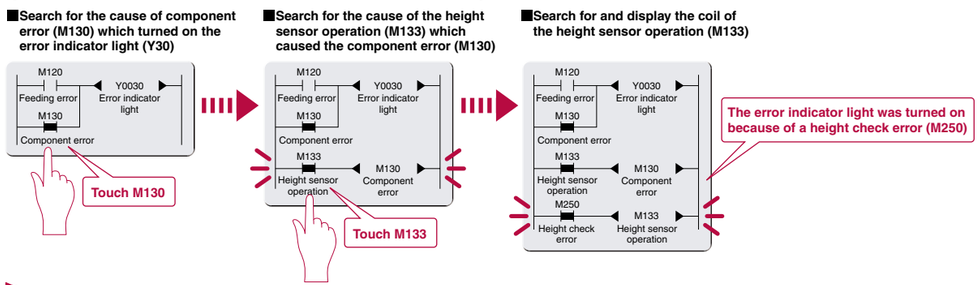
- Select [SP Function]-[Ladder Monitor] from the touch switch property dialog.



Other useful functions

- Device values and timer (T)/counter (C) set values can be changed while viewing the change points on the Ladder Monitor.
- When a problem occurs, the alarm history can be displayed and a back-tracking ladder search can be performed to find the contact which triggered the alarm. <Defect search>
- Simply touching the Ladder Monitor screen executes the coil search and contact point search. (Q/QnA series)
  Tracing from contact to coil, the cause of the problem can be easily found. <Touch search>

Example of defect search (when error indicator light [Y30] is on)



Since the cause of operation halts and interlocks can be checked, unexpected problems can be detected quickly.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Monitor SFC programs on the GOT to make troubleshooting even easier

GT16 GT15

GOT1000 GRAPHIC OPERATION TERMINAL

SFC monitor function

MELSEC Q series PLC SFC programs (MELSAP3, MELSAP-L) can be monitored in a graphical format.

<SFC (Sequential Function Chart)>
SFC programs express the equipment operation sequences in a flowchart format, making them easy to create and understand, even when created by someone else.
- Block: Indicates each process in the line.
- Step: A unit to indicate the operation of the equipment that exists in each process. The more detailed controls are programmed in ladder programs.
- Active block: Indicates the block where operation is currently in progress.
- Active step: Indicates the step where operation is currently in progress.

✻ : Supported by the XGA/SVGA/VGA models.

Easy monitoring of the program's progress

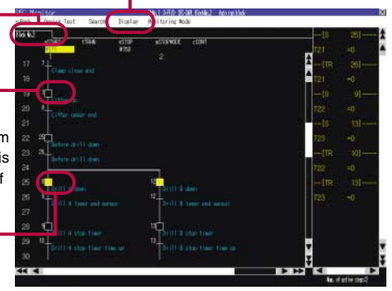
- SFC charts can be displayed from user-created screens or the utility menu. In user-created screens, setting program names and block numbers to touch switches makes it possible to jump to the relevant SFC programs, simply by touching the switches.
- Active steps are highlighted, and SFC programs can automatically be scrolled along with the progress of running programs, allowing quick and easy monitoring of the program status.
- By simply touching a block tab or a block startup step, the screen display can be switched between the source and destination blocks in the SFC program. A new block appears in sequential tabs from the left, making it easy to return instantly to the jump source block.
- Touch a SFC chart or a zoom window to specify a device in order to display other sequence programs that use the specified device (by using the Ladder Monitor function).

Switch displays Switch between the block list, the ladder monitor, etc.

Block tabs
Touch a tab to display the block.

Step
The active step is highlighted.
Touch the step to display the zoom window. If the block startup step is touched, then the SFC program of the relevant block is displayed.

Transition condition
In the device test mode, touching a transition condition displays a window for turning on or off a bit device.

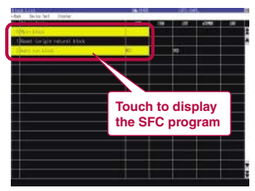


SFC chart

✻ : Zoom window displayed

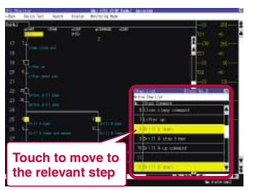
An array of displays permits the program's overall status to be seen at a glance

- The overall status of a program is easily analyzed by using various lists, even when the program has numerous blocks and steps.

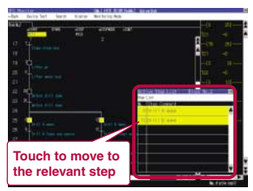


Block list
Shows the statuses of all blocks (start, transition, stop, stop mode, continuous).

Active block list
A desired active block can be immediately selected and displayed even when there are numerous blocks.



Step list
Shows the statuses (active/inactive) of all the steps in the displayed block.



Active step list
A step from the list can be selected and appear on the screen even if that particular step is not on the screen.

Easy device tests

- Device tests can be performed from the SFC program or the block list. It is convenient to execute active steps as a test.

An optional device may be necessary.
For details, see "Selection of optional units and devices" (page 77).

Save program comments to a CF card in the GOT

- Programs can be read from the PLC CPU and saved on the CF card, eliminating the need for re-reading from the PLC CPU even after switching off the GOT power.
- Comments in sequence programs can be saved to the GOT CF card and displayed on the SFC monitor. This can save a significant amount of PLC CPU memory.

The GT10 enhances its specifications for a better selection

GT10 MODEL

Enhanced screen size lineup, ranging from small to medium

- The GT10 now offers a line up of models with a 5.7" screen, enabling free and flexible screen layout. The 4.5" and 3.7" wide screen models are now also available with a white frame.

GT1050/GT1055 **5.7inch**

- QVGA 320 × 240 dots
- Matrix touch panel
- Minimum touch key size: 16 × 16 dots
- Maximum number of touch keys: 50/Screen

Black frame

White frame

GT1030 **4.5inch**

- 288 × 96 dots
- Matrix touch panel
- Minimum touch key size: 16 × 16 dots
- Maximum number of touch keys: 50/Screen

Black frame

White frame

GT1020 **3.7inch**

- 160 × 64 dots
- Analog touch panel
- Minimum touch key size: 2 × 2 dots
- Maximum number of touch keys: 50/Screen

Similar dimensions to F900 Series allows for simple replacement without panel design changes *1

*1 : When the F940GOT is replaced with the GT1050/GT1055 or when the F930GOT is replaced with the GT1030

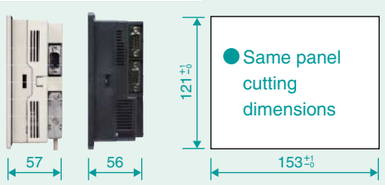
GT1050/GT1055

- The GT1050/GT1055 has the same panel mounting dimensions as the F940GOT.

F940GOT▶GT1050/GT1055

- QVGA 320 × 240 dots in each model

F940GOT▶GT1050/GT1055



- Same panel cutting dimensions
- Same connection direction for the communication connector

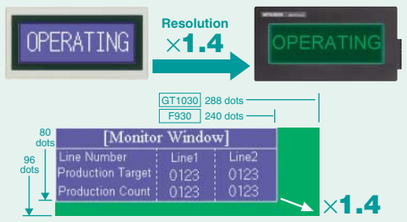
Unit: mm

GT1030

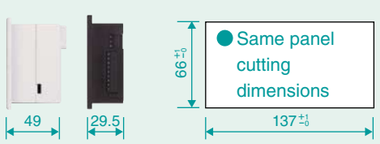
- The GT1030 has the same panel mounting dimensions as the F930GOT yet with improved resolution*2.

*2 : 1.44 times compared with the F930GOT

F930GOT▶GT1030



F930GOT▶GT1030



- Same panel cutting dimensions
- Slim design

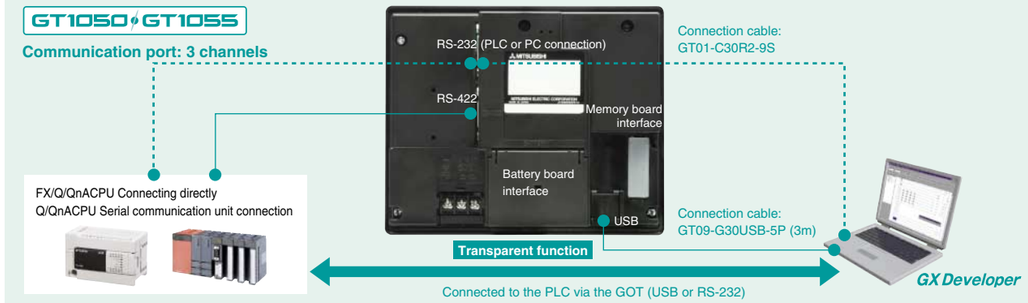
Unit: mm

Transparent function connecting the PLC via the GOT

- Through the personal computer communication connector at the rear of the GOT, users can debug, start, and adjust sequence programs.

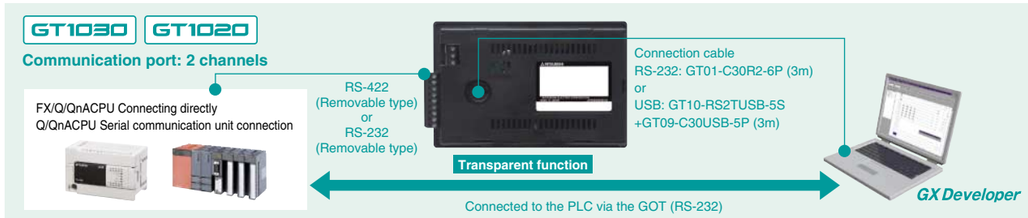
GT1050/GT1055

Communication port: 3 channels



GT1030 **GT1020**

Communication port: 2 channels



Multi-terminal connection*3

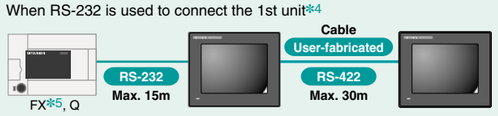
- Up to two GT10 units can be connected to one PLC unit even if the screen sizes differ. Thus enabling greater flexibility with terminal positioning.

*3 : The transparent function is not available when multiple units are connected. The USB interface is not available for connection of two units.

GT1050/GT1055

When RS-422 is used to connect the 1st unit*4

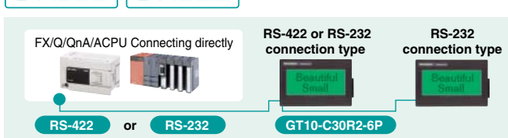
When RS-232 is used to connect the 1st unit*4



*4 : Refer to the connection manual for applicable models, required interface and compatibility with serial communication units (computer link units). The maximum length varies depending on the connected equipment. Refer to the connection manual for details.

*5 : A functional extension board or an adapter is necessary.

GT1030 **GT1020**



Versatile mounting

- Both horizontal and vertical mounting is available to the GT10 Series causing minimal impact on application design.

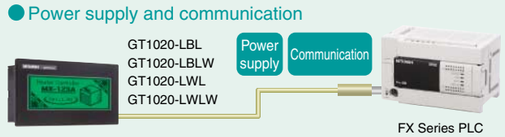
Makes equipment compact

Power supply & communication

GT1020

The 5V DC type GOT draws power through the FX programming port communication cable. Additional power supply is not required.

- Power supply and communication



Common software functionality

GT10 MODEL

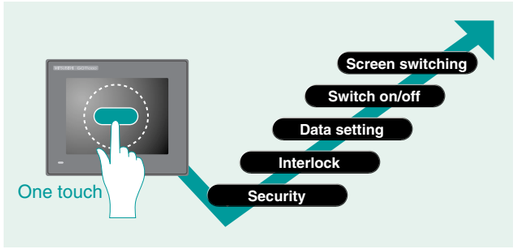
Alternative start-up screen

- Alternative bitmap images can be displayed when the GOT starts. Images may include photos, company logos etc. (The logo label "GOT1000" can also be removed.)

Set original BMP on startup screen

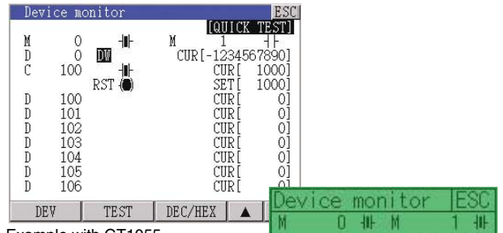
Multi action switch

- Because one switch can determine multiple functions, it is not necessary to overlay different switches types for each function. You can reduce loads on sequence programs by combining the settings of delay, repetition, interlock, etc. according to the operations within the PLC.



Device monitor function

- You can monitor the ON/OFF status of bit devices and values of word devices in FX/Q/QnA/A Series PLCs, as well as change the timer and counter values.

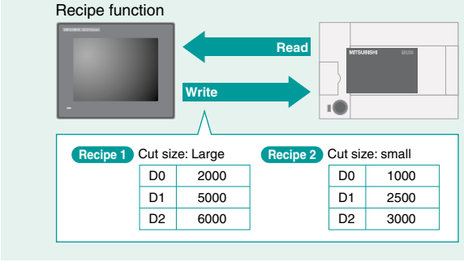


Example with GT1055

Example with GT1020

Simple data setting using the recipe function

- The GOT has a built-in memory for up to 4,000 points (corresponding to 16-bit word devices). Using this memory the GOT can transfer a range of values to and from the PLC.



Choose your font!

- A variety of fonts are available including the standard type set and the windows type set. When windows fonts are selected, italic, underlined, and underlined italic are also available.

Format string function

- The GT10 can display characters (alphabets, numbers, kanji, and symbols) in the device value display.

When the formatted character string in the basic settings is set as follows

##m ##cm

When the device value is "1234"

12m 34cm

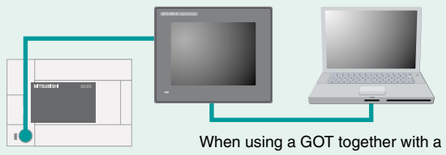
Preinstalled OS to enable immediate use

- **Pre-installed OS**

  The OS of the GOT is installed before shipment from the factory.

- **Communication driver**

  The communication driver installed before shipment is provided for an FX Series PLC. To connect a Q/QnA/A Series PLC, microcomputer board or other supported PLC device you have to install the required communication driver available from GT Designer2.

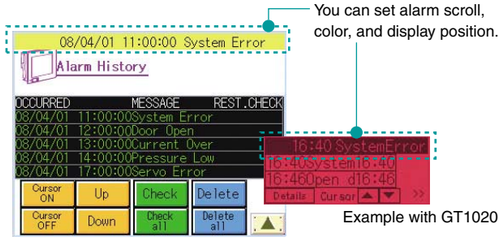


PLC

When using a GOT together with a FX PLC, all that is required is to download the project data.

Alarm function

- The GOT offers alarm display, alarm history, and alarm scroll functions to enable display setting for each window. Language switching for alarms is also available.

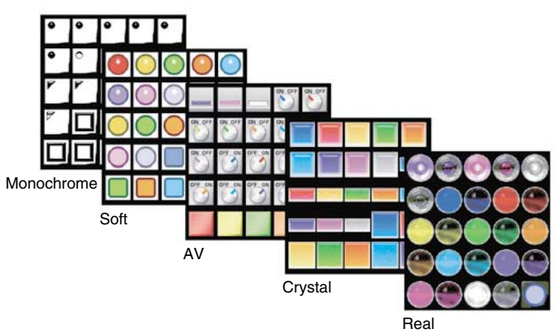


Example with GT1020

Example with GT1055

Design unification using the parts library

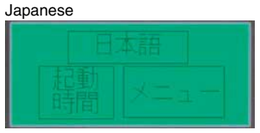
- Lamps and switches can be selected from the Screen Design Software's built in library. Alternatively new parts can be downloaded from the web. Library images can be displayed in all colors.



Simple set-up of language switching windows

- Language switching windows can be easily created allowing one language to be switched to another, for example English to Japanese.
  Up to 10 languages can be switched per comment group.
  Window switching can take place not only for languages but also for different applications.

Japanese



English

Characters from all over the world for people all over the world

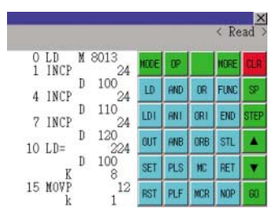
The GOT1000 series can display a number of languages for a variety of countries and areas.

Unicode2.1

Sequence program edition

GT1050 GT1055

- You can edit sequence programs in the list format of the FX PLC in the GOT. This function is convenient for simple program changes at the local site.



Screen save function

- The backlight ON/OFF setting achieves energy-saving whilst still enabling the GOT to function. The GOT screen can be controlled from the PLC, allowing backlight and alarm windows to be controlled in the event of an error.

Functionality

Common	◎Screen (base: max. 1,024 screens, window: max. 512 windows) ◎Fonts (standard (6×8 dots: Gothic, 16 dots: Gothic, 12 dots: gothic [except GT1020])/high quality/TrueType/Windows) ◎Screen switching function, screen call-up function, language switching function, password, system information, setting connected devices, and startup logo
Drawing and graphics	◎Straight lines, continuous lines, rectangular, polygons, chamfered quadrangles, circles, ellipses, arcs, elliptic arcs, circular sectors, and elliptic sectors ◎Division indication ◎Painting ◎Images (BMP/DXF)
Objects	◎Comment registration (basic comments and comment groups) ◎Parts registration ◎Data computing function ◎Offset function ◎Security function ◎Lamp indications ◎Touch switches ◎Numeric indications and input ◎ASCII indications and input ◎Clock function (GT1050, GT1055, GT1040, GT1045, GT1030: Integrated clock, GT1020: Read from the PLC clock) ◎Comment displays ◎Alarm list and alarm history ◎Parts display ◎Panel meters ◎Trend graphs, kinked line graphs, bar graphs, statistic crossbar graphs, statistic circular graphs ◎Status monitor function ◎Recipe function (4,000 points) ◎Time action function

✻: See the manual for details.

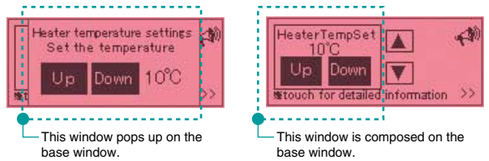
Easily added functions make it simpler to use

GT10 MODEL

Enhanced window functions

GT Designer2 Ver.2.73B or later

- 512 windows are available.
- The window overlay function is available.
- The window superimpose function is provided.



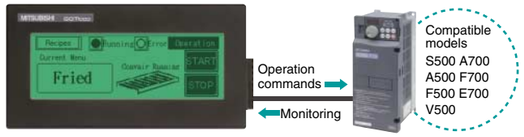
This window pops up on the base window.

This window is composed on the base window.

Connection to the Mitsubishi inverter series

GT Designer2 Ver.2.73B or later

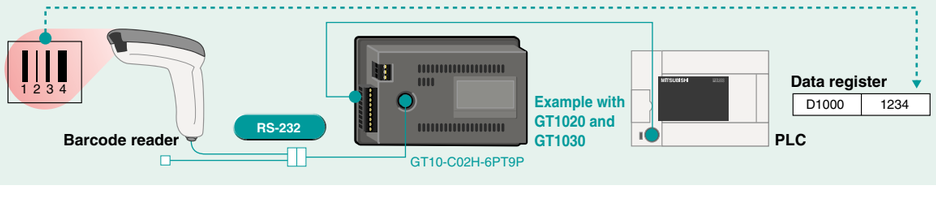
The popular, favored GT10 series has become compatible with inverters.



Connection to a barcode reader

GT Designer2 Ver.2.77F or later

- The RS-232 connection port for personal computer can be connected to a barcode reader.

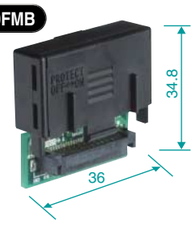


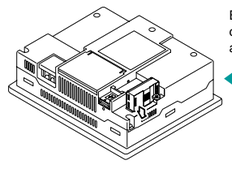
Data transfer for improved user-friendliness and flexibility

- Optional memory board and memory loader provide a convenient way to download project data and operating system to terminals without a PC. Furthermore when downloading to multiple units speed and efficiency is increased.

Data transfer memory board GT10-50FMB

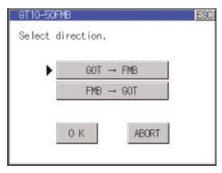
GT1050 GT1055





Basic OS, communication driver, and project data

Read/Write

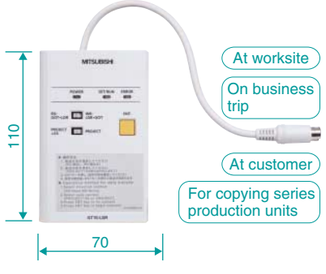


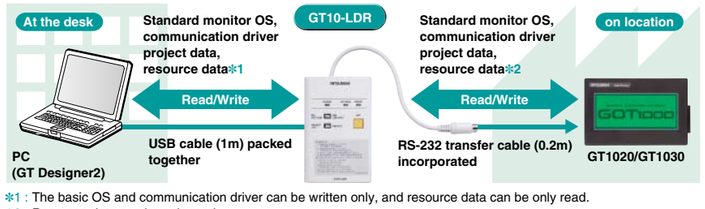
- Illustration showing how the memory board is attached to the terminal.
- Data can be read or written as shown in the utility window above.
- Data is written at startup when two points are pressed on the screen.

Memory loader GT10-LDR

GT1030 GT1020

- Has a compact design (70 × 110 mm), where the GOT transfer cable can be accommodated inside the body.
- Can write the basic OS, communication driver, and project data.
- Can read the project data and resource data.
- Offers simple switch type operation, where the write-protect switch prevents erroneous reading.
- Does not require power supply as power is supplied from the GOT or personal computer.





※1 : The basic OS and communication driver can be written only, and resource data can be only read.
※2 : Resource data can be only read.

Portable and wearable Handy terminal can also be mounted on a wall or a machine

Handy GOT

GT1155HS-QSBD/GT1150HS-QLBD

Display area equivalent to GT11

- The GT1155HS-QSBD has a 256-color display; the GT1150HS-QLBD has a 16 degree gray scale display.

Key type selector switch

- Restricts access of certain operations (manual/auto switching, mode selection, setup change, etc.) to authorized operators.

Emergency stop switch using two break contacts

- Improved safety by using two break contacts connected in series, either of which can execute a stop command when being switched off.

Grip switch

- The three position (OFF-ON-OFF) switch can be connected to external devices as a dead-man switch. The grip switch can be used for immediate execution of a command to stop a machine.

6 operation switches

- When wired directly to external devices, these switches can be used as pushbutton switches to operate and stop various machines. The operation switch name labels can be changed freely.
- The control panel is equipped with 6 LED lamps (green) for the operation confirmation of each of these switches.

CF card interface

- The CF card interface enables quick GOT data transfer.

USB interface

- The USB interface permits fast data transfer between GT Designer2 and the GOT.

RS-232 interface

- An RS-232 interface is provided for the GOT data transfer when the USB interface is not used.

RS-232/RS-422 communication

- Either RS-232 or RS-422 can be selected for communication with connected devices.

Optional devices

- Emergency stop switch guard (GT11H-50ESCOV)

- Connector conversion box for Handy GOT
- CF card
- Optional function board (GT11-50FNB)
- Replacement battery (GT11-50BAT)
- External connection cable
- Personal computer connection cable (RS-232 cable/USB cable)
- Protective sheet

Use your personal computer as a GOT

GT SoftGOT1000 Version2

For GOT1000

Screen data created by GT Designer2 Version2 can be used without conversion. GT SoftGOT1000 is an HMI software which offers the GOT1000 functions on personal computers and panel computers.

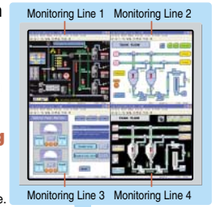
Remote monitoring over the factory LAN

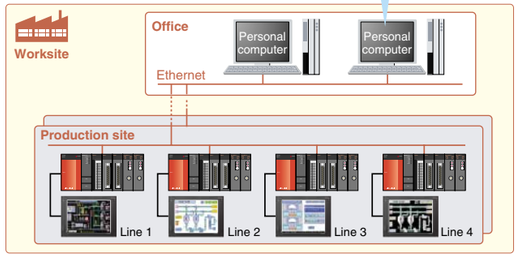
- Conditions at the production sites can be monitored from a remote location.

Multiple instances of GT SoftGOT1000 can run on a single personal computer.

Reduce cost by minimizing the system recovery time.

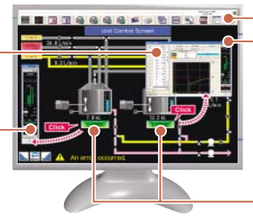
Upon occurrence of problems, the status of on-site equipment can be quickly monitored from your office. This reduces the time for an initial diagnosis.





Connection with MELSEC instrumentation

- Now compatible with the new process control CPUs (Q02PH and Q06PHCPU).
- GT SoftGOT1000 and PX Developer monitoring tools can be connected to easily establish an instrumentation monitoring system.



PX Developer face plate and other tools

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

Better linkage with other applications and more flexibility when creating screens

- Create a screen at a desired resolution depending on the applicable space on the screen. This function is useful when simultaneously displaying the GT SoftGOT1000 screen with another application software program on a personal computer display. (Screen size can be specified in the range of VGA to UXGA)
- Full-screen display: The whole monitoring screen such as XGA can be displayed in full-screen by hiding the title bar and the menu bar. Moreover, the screen size can be freely changed from other applications.
- Internal device interface functions: By using internal device interface functions, user-created applications can read/write data from/to the GOT internal devices. It is possible to link data to user applications such as a data logger in order to develop advanced systems that can run in cooperation with applications.

<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)

- Startup of other applications: In full-screen mode, other applications can be started with touch switches on the monitor screen of the GT SoftGOT1000.

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.

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.)

GT SoftGOT1000 (English version) operating environment

Item	Description	
	With DOS/V personal computer	With PC CPU module
Personal computer	PC/AT compatible PC on which Windows® 2000, Windows® XP, or Windows Vista® operates.	CONTEC PC CPU unit (PPC-852-212, PPC-852-217, PPC-852-226)※7
OS	Microsoft® Windows® 2000 Professional Operating System Service Pack 4 or later (English version)※2 ※4 Microsoft® Windows® XP Professional Operating System Service Pack 2 or later (English version)※3 ※4 ※9 Microsoft® Windows® XP Home Edition Operating System Service Pack 2 or later (English version)※3 ※4 ※9 Microsoft® Windows® XP Embedded Operating System (English version)※3 ※4 ※8 Microsoft® Windows Vista® Ultimate Operating System (English version)※3 ※4 ※9 Microsoft® Windows Vista® Enterprise Operating System (English version)※3 ※4 ※9 Microsoft® Windows Vista® Business Operating System (English version)※3 ※4 ※9 Microsoft® Windows Vista® Home Premium Operating System (English version)※3 ※4 ※9 Microsoft® Windows Vista® Home Basic Operating System (English version)※3 ※4 ※9	
CPU	Other than Microsoft® Windows Vista®: Pentium Ⅱ® 300MHz or higher Microsoft® Windows Vista®: 800MHz or higher (recommended: 1GHz or more)	
Required memory	Other than Microsoft® Windows Vista®: 128MB or more Microsoft® Windows Vista®: 512MB or more (recommended: 1GB or more)	
Free hard disk space※1	For installation (product only): 600MB or more	
Disk drive	CD-ROM disk drive	
Display colors	65,536 colors or more	
Display	Display usable on the above OS, which has a resolution of VGA (640 × 480 dots) or higher	
Software	When creating or editing project data : GT Designer2※5 When using with PX Developer : PX Developer Version 1.13P or later GT Designer2 Version 2.45X or later	
Hardware※6	GT15-SGTKEY-U (License key (for USB port)) GT15-SGTKEY-P (License key (for parallel port))	GT15-SGTKEY-U (License key (for USB port))
Other	Internet Explorer Ver. 5.0 or higher must be installed. Mouse, keyboard, printer and CD-ROM drive usable with the above OS	

Specification

Item	
Resolution (dots)	640 × 480, 800 × 600, 1024 × 768, 1280 × 1024, 1600 × 1200 Specifiable resolution (640 to 1600 × 480 to 1200)
Display colors	65,536 colors
Memory capacity	57MB
Connection configuration※10	Bus connection※11, CPU direct connection, computer link connection, CC-Link IE controller network connection, MELSECNET connection, Ethernet connection

※1 : Use of GT Designer2 and PX Developer requires additional vacant memory space. For these space requirements, refer to the GT Designer2 Version2 Basic Operation/Data Transfer Manual, and 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 Theme (Font) Change • Remote Desktop
※5 : GT Designer2 and GT SoftGOT1000 must be installed from the same GT Works2/GT Designer2.
※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 : For 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 : Connectable only when using a PC CPU unit.

※ : Some functions are not operable on the GT SoftGOT1000. For details, see "Function list" (page 82).

GT SoftGOT1000 Connectable Device List

[PLCs/motion controllers]

Mitsubishi PLCs and motion controllers

Series	Model name	Connection configuration: CPU direct connection	Computer link	MELSECNET/H※1	MELSECNET/10※2	CC-Link IE	Ethernet
MELSEC-Q series (Q mode)	Q00JCPU	USB connection	○	○	○※5	○※5	○	○
	Q00CPU※3							
	Q01CPU※3							
	Q02CPU※3							
	Q02HCPU※3							
	Q06HCPU※3							
	Q12HCPU※3							
	Q25HCPU※3							
	Q02PHCPU							
	Q06PHCPU							
	Q12PHCPU							
	Q25PHCPU							
Redundant system (main base)	Q12PRHCPU			×	○※5 ※6 ※12	○※5 ※6	○	○
	Q25PRHCPU							
Redundant system (extension base)	Q12PRHCPU	×	×	○	×	×	×	○
	Q25PRHCPU							
	Q02UCPU							
	Q03UDCPU							
	Q04UDHCPU							
	Q06UDHCPU							
	Q13UDHCPU							
	Q26UDHCPU							
	Q03UDECPU							
	Q04UDEHCPU							
	Q06UDEHCPU							
	Q13UDEHCPU							
	Q26UDEHCPU							
MELSECNET/H remote I/O station	QJ72LP25-25							
	QJ72LP25G	×	○	×	×	×	×	×
	QJ72BR15							
MELSEC-QS series	QS001CPU	○	×	×	○	○	○	○
MELSEC-Q series (A mode)	Q02CPU-A							
	Q02HCPU-A		○	○	×	○	×	○
	Q06HCPU-A							
MELSEC-QnA series (QnACPU type)	Q2ACPU							
	Q2ACPU-S1		○	○※4	×	○	×	○※4
	Q3ACPU							
	Q4ACPU							
	Q4ARCPU							
MELSEC-QnA series (QnASCPU type)	Q2ASCPU							
	Q2ASCPU-S1		○	○※4	×	○	×	○※4
	Q2ASHCPU							
	Q2ASHCPU-S1							
MELSEC-A series (AnCPU type)※10	A2UCPU							
	A2UCPU-S1							
	A3UCPU							
	A4UCPU							
	A2ACPU							
	A2ACPUP21							
	A2ACPUR21							
	A2ACPU-S1							
	A2ACPUP21-S1							
	A2ACPUR21-S1							
	A3ACPU							
	A3ACPUP21							
	A3ACPUR21		○※7	○	×	○	×	○
	A1NCPU							
	A1NCPUP21							
	A1NCPUR21							
	A2NCPU							
	A2NCPUP21							
	A2NCPUR21							
	A2NCPU-S1							
	A2NCPUP21-S1							
	A2NCPUR21-S1							
	A3NCPU							
	A3NCPUP21							
	A3NCPUR21							
MELSEC-A series (AnSCPU type)※10	A2USCPU							
	A2USCPU-S1							
	A2USHCPU-S1							
	A1SCPU							
	A1SCPUC24-R2							
	A1SHCPU							
	A2SCPU		○※7	○	×	○	×	○
	A2SCPU-S1							
	A2SHCPU							
	A2SHCPU-S1							
	A1SJCPU							
	A1SJCPU-S3							
	A1SJHCPU							
MELSEC-A series※10	A0J2HCPU							
	A0J2HCPUP21		○※7	○	×	×	×	○
	A0J2HCPUR21							
	A0J2HCPU-DC24							
	A2CCPU		○※7	×	×	×	×	×
	A2CCPUP21							
	A2CCPUR21							
	A2CCPUC24		○※7	○	×	×	×	×
	A2CCPUC24-PRF							
	A2CJCPU-S3		○※7	×	×	×	×	×
	A1FXCPU		○	×	×	×	×	×
Motion controller CPU (Q series)	Q172CPU							
	Q173CPU							
	Q172CPUN							
	Q173CPUN		×	×	×	×	×	×
	Q172HCPU							
	Q173HCPU							
	Q172DCPU							
	Q173DCPU							
Motion controller CPU (A series/large type)	A273UCPU	×	×	×	×	×	×	
	A273UHCPU	○※8	○	×	○	×	○	
	A273UHCPU-S3							
	A373UCPU	×	×	×	×	×	×	
	A373UCPU-S3							
Motion controller CPU※10 (A series/small type)	A171SCPU							
	A171SCPU-S3	×	×	×	×	×	×	
	A171SCPU-S3N							
	A171SHCPU							
	A171SHCPUN	○※8	○	×	○	×	○	
	A172SHCPU							
	A172SHCPUN							
	A173UHCPU							
	A173UHCPU-S1							
MELSEC-FX series	FX0S							
	FX0N							
	FX1S							
	FX1N							
	FX1NC		○	×	×	×	×	×
	FX2N							
	FX2NC							
	FX3G							
	FX3U							
	FX3UC							

※1 : Connection configuration for network type MELSECNET/H mode and MELSECNET/H extension mode (PC-to-PC net).
※2 : Connection configuration for network type MELSECNET/10 mode (PC-to-PC net). (Including the case where the mode is switched from MELSECNET/H to MELSECNET/10 (PC-to-PC net))
※3 : For multi-CPU configuration, use the CPU function version B or later.
※4 : When using a computer link module for A series or an Ethernet module with QnACPU, GT SoftGOT1000 cannot monitor the module.
※5 : Use the PLC CPU and MELSECNET/H network module function version B or later.
※6 : Use the driver (SW0DNC-MNETH-B) of version K or later for the MELSECNET/H board.

Modules usable when connected with Mitsubishi PLCs

▪ For computer link connection※1

CPU series	Serial communication module/computer link module
MELSEC-Q series (Q mode)	QJ71C24(-R2)/QJ71C24N(-R2)/QJ71CMO(N)
MELSEC-Q series (A mode)	A1SJ71UC24-R2/A1SJ71C24-R2
MELSEC-QnA series	AJ71QC24(-R2)/AJ71QC24N(-R2)/ A1SJ71QC24(-R2)/A1SJ71QC24N(-R2)
MELSEC-A series	AJ71C24-S8/AJ71UC24/A1SJ71C24-R2/A1SJ71UC24-R2

※1 : Only RS-232 communication is possible.

▪ For MELSECNET/H and MELSECNET/10 connection

Use a network unit applicable to the network board used for GT SoftGOT1000. The network boards that can be used with GT SoftGOT1000 are shown on the right. Q80BD-J71BR11 (coaxial loop), Q80BD-J71LP21-25 (optical loop) and Q80BD-J71LP21G (optical loop)

▪ For CC-Link IE controller connection

Use a network unit applicable to the network board used for GT SoftGOT1000. The network boards that can be used with GT SoftGOT1000 are shown on the right. Q80BD-J71GP21-SX and Q80BD-J71GP21S-SX

▪ For Ethernet connection

CPU series	Ethernet module
MELSEC-Q series (Q mode)	QJ71E71-100/QJ71E71-B5/QJ71E71-B2/QJ71E71
MELSEC-QnA series	AJ71QE71N-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)※1	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

※1 : Only the device ranges within AnACPU specifications are supported.

Third party PLCs

Manufacturer		Model name	Connection configuration: CPU direct connection (RS-232)	Computer link (RS-232)	Ethernet
OMRON	Micro PLC	CPM2A	○	—	—
	Small-size PLC	C200HX	○	—	—
		C200HG			
		CQM1			
		CQM1H			
		CS1H			
		CS1G			
		CS1D			
		CJ1H			
		CJ1G			
		CJ1M			
	Large-size PLC	CV500	○	—	—
		CV1000			
		CV2000			
		CVM1			
Yaskawa Electric		GL120	○	×	×
		GL130			
		GL60S	×	○	
		GL60H			
		GL70H			
		CP-9200SH	×	○	
		CP-9300MS		×	
		MP920	○	○	○
		MP930		×	×
		MP940			
		PROGIC-8			
		CP-9200(H)			
		MP2200	×	○	○
		MP2300			
Yokogawa Electric		F3SP05	—	—	○
		F3SP08			
		F3FP36			
		F3SP21			
		F3SP25			
		F3SP35			
		F3SP28			
		F3SP38			
		F3SP53			
		F3SP58			
		F3SP59			
		F3SP66			
		F3SP67			

Modules usable when connected with PLCs made by Yaskawa Electric Corporation

▪ For computer link connection

MEMOBUS module/communication module	JAMSC-IF60, JAMSC-IF61, CP-217IF, 217IF-01, 217IF, 218IF-01

▪ For Ethernet connection

Communication module	218IF, 218IF-01

Modules usable when connected with PLCs made by Yokogawa Electric Corporation

▪ For Ethernet connection

Ethernet interface module	F3LE01-5T, F3LE11-0T, F3LE12-0T

[CNCs] Mitsubishi CNCs

Series	Model name	Connection configuration: CPU direct connection	Computer link	MELSECNET/H※1	MELSECNET/10※2	CC-Link IE	Ethernet
CNC C70	Q173NCCPU	○※11	○	○	○	○	○
MELDAS C6/C64	FCA C6 FCA C64	○※9	×	×	×	×	○※9

Usable units when connected to MELDAS C6/C64

▪ For Ethernet connection

CPU series	Ethernet module
MELDAS C6/C64	FCU6-EX875

[Robot] Mitsubishi Industrial Robots

Controller name	Connection configuration: CPU direct connection	Computer link	MELSECNET/H※1	MELSECNET/10※2	CC-Link IE	Ethernet
CRnQ-700	○※11	○	○	○	○	○
CRnD-700	×	×	×	×	×	○

※7 : Only the following software version or later can be used to write data to the AnNCPU(S1), A2SCPU, A0J2HCPU and A2CCPU. Earlier versions cannot be used.
• AnNCPU(S1): Version L or later for a CPU with link, and version H or later for a CPU without link
• A2SCPU: Version H or later • A0J2HCPU: Version E or later
• A0J2HCPU-DC24: Version B or later • A2CCPU: Version H or later
※8 : When connected with GT SoftGOT1000, the CPUs cannot be connected simultaneously with other MELSOFT products (GX Developer, etc.).
※9 : Use MELDAS C6/C64 of the following NC system software version.
• NC system software version D0 or later
※10 : Computer link unit software version U or later must be used for the A2SCPU, A2SHCPU, A1SHCPU, A1SJHCPU, A0J2HCPU, A171SHCPU and A172SHCPU computer link connection. A0J2-C214-S1 (computer link unit for A0J2HCPU) cannot be used.
※11 : Accessing Q173NCCPU, CRnQ-700 must be performed via USB or RS-232 of QCPU in the multi-CPU system.
※12 : MELSECNET/H extension mode cannot be used.

Ensuring reliable coordination with controllers compatible with the iQ Platform, the GOT1000 represents all the controls.

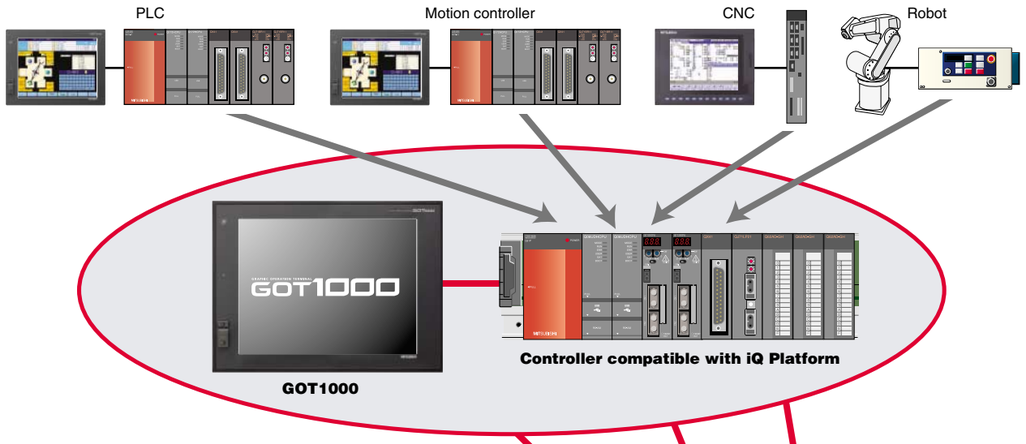
iQ Platform

Mitsubishi FA Integrated Platform optimizes front line of production

"iQ Platform," the next generation integrated platform
- integrated Q
- improved Quality
- intelligent & Quick
- innovation & Quest

With high speed control and convenience fully assured, "controllers compatible with the iQ Platform" and the "GOT1000" are the keys to higher productivity and lower costs.

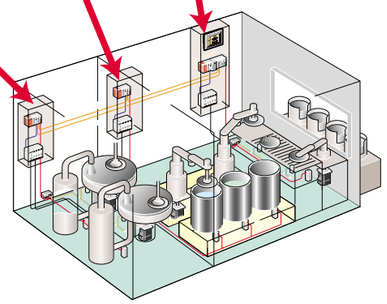
PLCs, motion controllers, CNCs, and robot controllers are integrated into one as a controller compatible with the iQ Platform. The GOT1000 can integrate different types of monitor units that were previously connected to each controller.



①Reducing engineering cost
The screen design software "GT Designer2" enables to create monitor screens for each controller.

②Reducing spare parts cost
One GOT1000 can integrate different types of monitor units connected to each controller, greatly reducing spare parts cost.

③Powerful support for maintenance
The GOT1000 has a variety of useful maintenance functions such as the "Q motion monitor function" and "CNC monitor function," very capable of and reliable for troubleshooting. (GT16 and GT15 only)




CNC monitor function

Example of created screen

✻ : Connectable models and usable functions vary depending on the GOT main unit.
For more details, see "List of connectable models" (page 62), "Notes for use" (page 77) and "Function list" (page 82).

Flexibly interacting with process control
Building up monitor systems without SCADA

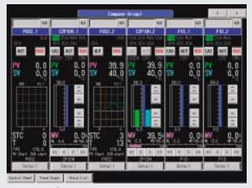
MELSEC process control + GOT1000

"MELSEC process control" was developed for process control with general-purpose PLCs. The GOT1000 can play an active role as the monitoring interface, offering various features and advantages such as excellent interaction that only a group of Mitsubishi brand units can develop, the ability to build up monitoring systems without SCADA, and many others.

Three benefits that MELSEC process control and GOT1000 (GT16/GT15) can offer.

①The PX Developer creates GOT process control screens automatically.
Based on the information such as tags defined by the PX Developer, process control monitor screens for the GOT can be created automatically, greatly reducing the man-hours for screen design.
GT Designer2 can then customize the automatically created screens.

[Screen examples that can be created automatically]


Control panel screen


Tuning screen


Tag setting screen


Alarm list screen NEW


Trend graph screen NEW

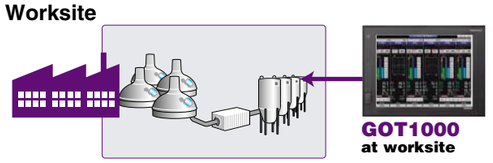
②Utilizing GOT1000 & SoftGOT1000 data
Only by using GT Designer2 and PX Developer, a process control monitor system can be developed for both a worksite (GOT1000) and a monitor room (GT SoftGOT1000). Screen data can be shared to monitor screens efficiently.

③A variety of functions of GOT1000 that a process control CPU can also use.
Hooked up to the GOT1000, a process control CPU can use a variety of functions that are characteristic of the GOT1000 such as the backup and restoration functions.

Compatible with new process control CPUs (Q02PH/Q06PHCPU). Best fit for small-scale process equipment!

The worksite or the monitor room needs no SCADAs, making it simple and easy to build up a "process control monitor system."

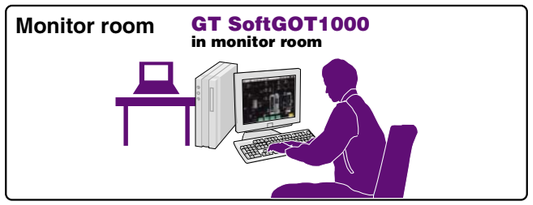
Worksite



- Excellent anti-environment performance (IP67f) and operates in various kinds of worksites.
- The function to automatically generate process control screens enables process control monitor screens to be created simply and easily, which was previously a time consuming task.
- A variety of functions that are characteristic of the GOT1000 are available for use such as the operation log function, operator authentication, and backup/restoration functions.

<For detailed descriptions on these functions, see PX Developer New Product Release No.308E and PX Developer Operating Manual (GOT Screen Generator).>

Monitor room



- Best fit for monitoring in a monitor room because of being operable on a personal computer.
- Touch switches on the GT SoftGOT1000 can call up screens such as face plates and the alarm list of the PX Developer monitor tool.
- Since the GOT1000 screen data can be used for GT SoftGOT1000 without modification, no screens need to be created for a monitor room.

< For more details, see page 58 of this catalog.>

List of connectable models

The GOT1000 series allows connection to Mitsubishi PLCs and a variety of other FA devices.

Mitsubishi PLCs/motion controllers

A wide selection of Mitsubishi PLCs and motion controllers are supported.

Series	Model name	Connection configuration: GT16/GT15/GT11: Bus connection ※3	CPU direct connection	Computer link	MELSECNET/H ※1	MELSECNET/10 ※1 ※4	CC-Link IE ※1 ※2	CC-Link (ID) ※1 ※5	CC-Link (via G4) ※5	Ethernet ※1	GT10: CPU direct connection	Computer link	CC-Link (via G4) ※5
MELSEC-Q series (Q mode)	Q00JCPU	○ ※8											
	Q00CPU ※7	○	○	○	○	○ ※9	○	○	○	○	○	○	○
	Q01CPU ※7												
	Q02CPU ※7												
	Q02HCPU ※7												
	Q06HCPU ※7												
	Q12HCPU ※7												
	Q25HCPU ※7												
	Q02PHCPU												
	Q06PHCPU												
	Q12PHCPU												
	Q25PHCPU										×	×	×
Redundant system (main base)	Q12PRHCPU	×	○	×	○	○ ※9	○	○	○	○			
Redundant system (main base)	Q25PRHCPU												
Redundant system (extension base)	Q12PRHCPU	×	×	○	×	×	×	○	○	○			
Redundant system (extension base)	Q25PRHCPU												
	Q02UCPU												
	Q03UDCPU												
	Q04UDHCPU		○								○		
	Q06UDHCPU												
	Q13UDHCPU												
	Q26UDHCPU	○		○	○	○	○	○	○	○		○	○
	Q03UDECPU												
	Q04UDEHCPU												
	Q06UDEHCPU		×								×		
	Q13UDEHCPU												
	Q26UDEHCPU												
MELSECNET/H remote I/O station	QJ72LP25-25												
MELSECNET/H remote I/O station	QJ72LP25G	×	○	○	×	×	×	×	×	○	×	×	×
MELSECNET/H remote I/O station	QJ72BR15												
MELSEC-QS series	QS001CPU	×	×	×	○	○	○	×	×	○	×	×	×
MELSEC-Q series (A mode)	Q02CPU-A												
MELSEC-Q series (A mode)	Q02HCPU-A	×	○	○	×	○	×	○	×	○	○	○	
MELSEC-Q series (A mode)	Q06HCPU-A												
MELSEC-QnA series (QnACPU type)	Q2ACPU												
MELSEC-QnA series (QnACPU type)	Q2ACPU-S1	○									○ ※6	○ ※6	
MELSEC-QnA series (QnACPU type)	Q3ACPU		○	○		○	×	○	×	○ ※6			
MELSEC-QnA series (QnACPU type)	Q4ACPU												
MELSEC-QnA series (QnACPU type)	Q4ARCPU ※10	○ ※10	○	○ ※6	×	○	×	○	×	○ ※6	×	×	
MELSEC-QnA series (QnASCPU type)	Q2ASCPU												
MELSEC-QnA series (QnASCPU type)	Q2ASCPU-S1	○									○ ※6	○ ※6	
MELSEC-QnA series (QnASCPU type)	Q2ASHCPU												
MELSEC-QnA series (QnASCPU type)	Q2ASHCPU-S1												
MELSEC-A series (AnCPU type)	A2UCPU												
MELSEC-A series (AnCPU type)	A2UCPU-S1					○							
MELSEC-A series (AnCPU type)	A3UCPU												
MELSEC-A series (AnCPU type)	A4UCPU												
MELSEC-A series (AnCPU type)	A2ACPU												
MELSEC-A series (AnCPU type)	A2ACPUP21												
MELSEC-A series (AnCPU type)	A2ACPUR21		○								○		×
MELSEC-A series (AnCPU type)	A2ACPU-S1												
MELSEC-A series (AnCPU type)	A2ACPUP21-S1												
MELSEC-A series (AnCPU type)	A2ACPUR21-S1												
MELSEC-A series (AnCPU type)	A3ACPU												
MELSEC-A series (AnCPU type)	A3ACPUP21												
MELSEC-A series (AnCPU type)	A3ACPUR21	○		○	×		×	○	×	○		○	
MELSEC-A series (AnCPU type)	A1NCPU												
MELSEC-A series (AnCPU type)	A1NCPUP21					×							
MELSEC-A series (AnCPU type)	A1NCPUR21		○ ※12								○ ※12		
MELSEC-A series (AnCPU type)	A2NCPU												
MELSEC-A series (AnCPU type)	A2NCPUP21												
MELSEC-A series (AnCPU type)	A2NCPUR21												
MELSEC-A series (AnCPU type)	A2NCPU-S1												
MELSEC-A series (AnCPU type)	A2NCPUP21-S1												
MELSEC-A series (AnCPU type)	A2NCPUR21-S1												
MELSEC-A series (AnCPU type)	A3NCPU												
MELSEC-A series (AnCPU type)	A3NCPUP21												
MELSEC-A series (AnCPU type)	A3NCPUR21												

※1 : Supported by GT16 and GT15 only.
※2 : Indicates CC-Link IE network connection
※3 : When connecting multiple GOTs, note that the following GOT models cannot be used together: GOT1000 series, GOT-A900 series, GOT800 series and A77GOT.
※4 : When MELSECNET/H is used in NET/10 mode, the GOT terminal cannot be connected directly to a remote I/O station.
※5 : CC-Link (ID): Connected as CC-Link (intelligent device station)
CC-Link (via G4): Connected to a CC-Link system via AJ65BT-G4-S3 or AJ65BT-R2N
※6 : When using A series computer link or an Ethernet module with QnACPU, only the device ranges within AnACPU specifications are supported.
The following devices cannot be monitored:
• Devices that have been newly added to the QnACPU
• Latch relay (L) and step relay (S)
(In the QnACPU, the latch relay (L) and step relay (S) are separate devices from the internal relay (M), but the internal relay is nonetheless accessed when either the latch relay or step relay is specified.)
• File register (R)
※7 : Use CPU function version B or later in a multi-CPU system.
※8 : When using a bus extension connector box, it must be installed on an extension base. (It cannot be installed on the main base.)
※9 : Use function version B or later for the CPU and MELSECNET/H network unit.
※10 : In Q4ARCPU redundant system, GOT must be connected via bus connection to the last stage's redundant system extension base A68RB version B or later.

Series	Model name	Connection configuration: GT16/GT15/GT11: Bus connection ※3	CPU direct connection	Computer link	MELSECNET/H ※1	MELSECNET/10 ※1 ※4	CC-Link IE ※1 ※2	CC-Link (ID) ※1 ※5	CC-Link (via G4) ※5	Ethernet ※1	GT10: CPU direct connection	Computer link	CC-Link (via G4) ※5
MELSEC-A series (AnSCPU type) ※11	A2USCPU					○							
MELSEC-A series (AnSCPU type) ※11	A2USCPU-S1		○								○		
MELSEC-A series (AnSCPU type) ※11	A2USHCPU-S1												
MELSEC-A series (AnSCPU type) ※11	A1SCPU	○											
MELSEC-A series (AnSCPU type) ※11	A1SCPUC24-R2												
MELSEC-A series (AnSCPU type) ※11	A1SHCPU												
MELSEC-A series (AnSCPU type) ※11	A2SCPU		○ ※12	○	×	×	×	○	×	○	○ ※12	○	
MELSEC-A series (AnSCPU type) ※11	A2SCPU-S1												
MELSEC-A series (AnSCPU type) ※11	A2SHCPU												
MELSEC-A series (AnSCPU type) ※11	A2SHCPU-S1												
MELSEC-A series (AnSCPU type) ※11	A1SJCPU										○		
MELSEC-A series (AnSCPU type) ※11	A1SJCPU-S3	○ ※13											
MELSEC-A series (AnSCPU type) ※11	A1SJHCPU												
MELSEC-A series ※11	A0J2HCPU												
MELSEC-A series ※11	A0J2HCPUP21	○	○ ※12	○		×	×	○	×	○	○ ※12	○	
MELSEC-A series ※11	A0J2HCPUR21												
MELSEC-A series ※11	A0J2HCPU-DC24												
MELSEC-A series ※11	A2CCPU		○ ※12								○ ※12		
MELSEC-A series ※11	A2CCPUP21	×	○	×	×	×	×	×	×	×	○	×	
MELSEC-A series ※11	A2CCPUR21		○								○		
MELSEC-A series ※11	A2CCPUC24	×	○	○		×		×	×	○	○	○	
MELSEC-A series ※11	A2CCPUC24-PRF												
MELSEC-A series ※11	A2CJCPU-S3	×	○	×		×		×	×	○	○	×	
MELSEC-A series ※11	A1FXCPU	×	○	×		×		×	×	○	○	×	
Motion controller CPU (Q series)	Q172CPU ※14	○ ※16	○ ※16	○ ※17	○ ※17	○ ※17		○ ※17	○ ※17	○ ※17			
Motion controller CPU (Q series)	Q173CPU ※14										×	×	×
Motion controller CPU (Q series)	Q172CPUN ※14	○	○	○	○	○	×	○	○	○			
Motion controller CPU (Q series)	Q173CPUN ※14												
Motion controller CPU (Q series)	Q172HCPU		○ ※15										
Motion controller CPU (Q series)	Q173HCPU												
Motion controller CPU (Q series)	Q172DCPU	○	○ ※15	○	○	○	○	○	○	○	×	×	
Motion controller CPU (Q series)	Q173DCPU												
Motion controller CPU (A series) (large type)	A273UCPU												
Motion controller CPU (A series) (large type)	A273UHCPU												
Motion controller CPU (A series) (large type)	A273UHCPU-S3	○	○	○	×	○	×	○	×	○	×	×	
Motion controller CPU (A series) (large type)	A373UCPU												
Motion controller CPU (A series) (large type)	A373UCPU-S3												
Motion controller CPU (A series) (small type) ※11	A171SCPU												
Motion controller CPU (A series) (small type) ※11	A171SCPU-S3												
Motion controller CPU (A series) (small type) ※11	A171SCPU-S3N												
Motion controller CPU (A series) (small type) ※11	A171SHCPU												
Motion controller CPU (A series) (small type) ※11	A171SHCPUN	○ ※18	○	○	○	×	×	○	×	○	×	×	
Motion controller CPU (A series) (small type) ※11	A172SHCPU												
Motion controller CPU (A series) (small type) ※11	A172SHCPUN												
Motion controller CPU (A series) (small type) ※11	A173UHCPU					○							
Motion controller CPU (A series) (small type) ※11	A173UHCPU-S1												
MELSEC-FX series	FX0S												
MELSEC-FX series	FX0N												
MELSEC-FX series	FX1S												
MELSEC-FX series	FX1N												
MELSEC-FX series	FX1NC												
MELSEC-FX series	FX2N	×	○	×	×	×	×	×	×	○	×	×	
MELSEC-FX series	FX2NC												
MELSEC-FX series	FX3G												
MELSEC-FX series	FX3U												
MELSEC-FX series	FX3UC												

※11 : Computer link unit software version U or later must be used for the A2SCPU, A2SHCPU, A1SHCPU, A1SJHCPU, A0J2HCPU, A171SHCPU and A172SHCPU computer link connections.
A0J2-C214-S1 (dedicated computer link unit for A0J2HCPU) cannot be used.
※12 : Only the following software version or later can be used to write data to the AnNCPU(S1), A2SCPU, A0J2HCPU and A2CCPU. Earlier versions cannot be used.
• AnNCPU(S1) : Version L or later for CPUs with link, and version H or later for CPUs 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
※13 : Cannot connect to bus if an extension base is connected.
※14 : Use of SV13, SV22 or SV43 requires a motion controller with the following OS version installed.
SW6RN-SV13Q□ : 00H or later (00E or later in the case of bus connection or CPU direct connection with Q172CPU or Q173CPU)
SW6RN-SV22Q□ : 00H or later (00E or later in the case of bus connection or CPU direct connection with Q172CPU or Q173CPU)
SW6RN-SV43Q□ : 00B or later
※15 : Only a USB interface is available on the Q172HCPU, Q173HCPU, Q172DCPU and Q173DCPU.
The Q172HCPU, Q173HCPU, Q172DCPU and Q173DCPU can be accessed via RS-232 of the QCPU of a multi-CPU system.
※16 : Use a unit with the following Serial No.
Q172CPU Serial No. K******** or later
Q173CPU Serial No. J******** or later
※17 : Use a unit with the following Serial No.
Q172CPU Serial No. N******** or later
Q173CPU Serial No. M******** or later
※18 : When an expansion base is used, use A168B.

※ : Applicable GOT varies depending on the connection destination.
GT16 ··· When connected via RS-232, RS-422/485 or Ethernet: All models (Use the built-in interface of the GOT main unit.)
When connected via ports other than above: All models (Bus connection and network connection are enabled by mounting a communication unit on the GOT main unit.)
GT15 ··· When connected via RS-232: All models (Use the built-in interface of the GOT main unit.)
When other than RS-232: All models (Bus connection and network connection are enabled by mounting a communication unit on the GOT main unit.)
GT11 ··· When connected via RS-232 or RS-422: GT115□-Q□BD
When using bus connection: GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT ··· When connected via RS-232 or RS-422: GT115□HS-Q□BD
GT10 ··· When connected via RS-232: GT105□-Q□BD, GT1030-LBD2/LBDW2, GT1020-LBD2/LBDW2
When connected via RS-422: GT105□-Q□BD, GT1030-LBD/LBDW, GT1020-LBD/LBDW, GT1020-LBL/LBLW (The GT1020-LBL/LBLW can be used only with the MELSEC-FXCPU.)

■Modules usable when connected with Mitsubishi PLCs

●For computer link connection

CPU series	Serial communication module/computer link module ※1: Model	CH1	CH2
MELSEC-Q series (Q mode) Motion controller CPU (Q series) MELSECNET/H remote I/O station	QJ71C24 ※2	RS-232	RS-422/485
	QJ71C24-R2 ※2	RS-232	RS-232
	QJ71C24N	RS-232	RS-422/485
	QJ71C24N-R2	RS-232	RS-232
	QJ71C24N-R4	RS-422/485	RS-422/485
	QJ71CMO ※3 ※7	Modular connector	RS-232
	QJ71CMON ※3 ※7	Modular connector	RS-232
MELSEC-Q series (A mode)	A1SJ71UC24-R2	RS-232	–
	A1SJ71UC24-R4	RS-422/485	–
MELSEC-QnA series	AJ71QC24 ※4	RS-232	RS-422/485
	AJ71QC24-R2 ※4	RS-232	RS-232
	AJ71QC24-R4 ※4	RS-422	RS-422/485
	AJ71QC24N ※4	RS-232	RS-422/485
	AJ71QC24N-R2 ※4	RS-232	RS-232
	AJ71QC24N-R4 ※4	RS-422	RS-422/485
	A1SJ71QC24 ※4	RS-232	RS-422/485
	A1SJ71QC24-R2 ※4	RS-232	RS-232
	A1SJ71QC24N ※4	RS-232	RS-422/485
	A1SJ71QC24N-R2 ※4	RS-232	RS-232
	A1SJ71QC24N1 ※4	RS-232	RS-422/485
	A1SJ71QC24N1-R2 ※4	RS-232	RS-232
	AJ71UC24 ※4 ※6 ※7	RS-232	RS-422/485
	A1SJ71UC24-R2 ※6 ※7	RS-232	–
	A1SJ71UC24-R4 ※6 ※7	RS-422/485	–
MELSEC-A series Motion controller CPU (A series)	AJ71UC24 ※4 ※5	RS-232	RS-422/485
	A1SJ71UC24-R2 ※5	RS-232	–
	A1SJ71UC24-R4 ※5	RS-422/485	–
	A1SJ71C24-R2 ※5 ※6	RS-232	–
	A1SJ71C24-R4 ※5 ※6	RS-422/485	–
	A1SCPUC24-R2 ※5	RS-232	–
	A2CCPUC24 ※4	RS-232	RS-422/485

※1 : RS-485 communication is not possible; therefore, A0J2-C214-S1 is unusable.
When using A series computer link with QnACPU, only the device ranges within AnACPU specifications are supported.
The following devices cannot be monitored:
• Devices that have been newly added to the QnACPU
• Latch relay (L) and step relay (S)
(In the QnACPU, the latch relay (L) and step relay (S) are separate devices from the internal relay (M), but the internal relay is nonetheless accessed when either the latch relay or step relay is specified.)
• File register (R)
※2 : With function version A, either CH1 or CH2 can be connected. With function version B or later, both CH1 and CH2 can be connected.
※3 : Only CH2 can be connected.
※4 : Either CH1 or CH2 can be connected.
※5 : When connecting to A1SHCPU, A2SCPU(S1), A2SHCPU(S1), A1SJHCPU, A0J2HCPU, A171SHCPU(N) or A172SHCPU(N), use computer link module software version U or later.
※6 : Computer link module/serial communication module operate within the range of devices available on AnACPU. (R devices cannot be used.)
※7 : GT10 cannot be used.

●For Ethernet connection

CPU series	Ethernet module ※1				
MELSEC-Q series (Q mode)	QJ71E71-100	QJ71E71-B5	QJ71E71-B2	QJ71E71	
MELSEC-QnA series	AJ71QE71N3-T	AJ71QE71N-T	AJ71QE71-B5	A1SJ71QE71N-B2	A1SJ71QE71-B5
	AJ71QE71N-B5	AJ71QE71N-B5T	A1SJ71QE71N3-T	A1SJ71QE71N-T	A1SJ71QE71-B2
	AJ71QE71N-B2	AJ71QE71	A1SJ71QE71N-B5	A1SJ71QE71N-B5T	
MELSEC-Q series (A mode) MELSEC-A series Motion controller CPU (A series)	AJ71E71N3-T	AJ71E71N-T	A1SJ71E71N3-T	A1SJ71E71N-T	A1SJ71E71-B5-S3
	AJ71E71N-B5	AJ71E71N-B5T	A1SJ71E71N-B5	A1SJ71E71N-B5T	A1SJ71E71-B2-S3
	AJ71E71N-B2	AJ71E71-S3	A1SJ71E71N-B2		

※1 : When using an A series Ethernet with QnACPU, only the device ranges within AnACPU specifications are supported except for the following devices.
• Devices that have been newly added to the QnACPU
• Latch relay (L) and step relay (S)
(In the QnACPU, the latch relay (L) and step relay (S) are separate devices from the internal relay (M), but the internal relay is nonetheless accessed when either the latch relay or step relay is specified.)
• File register (R)

●For MELSECNET/H connection

CPU series	MELSECNET/H module: Optical loop	Coaxial bus
MELSEC-Q series (Q mode) ※1	QJ71LP21 QJ71LP21-25 QJ71LP21S-25	QJ71BR11

※1 : Use CPU and MELSECNET/H network unit function version B or later.

●For MELSECNET/10 connection

CPU series	MELSECNET/H (NET/10 mode), MELSECNET/10 module: Optical loop	Coaxial bus
MELSEC-Q series (Q mode) ※1	QJ71LP21 QJ71LP21-25 QJ71LP21S-25	QJ71BR11
MELSEC-QnA series	AJ71QLP21 A1SJ71QLP21 AJ71QLP21S A1SJ71QLP21S	AJ71QBR11 A1SJ71QBR11
MELSEC-Q series (A mode) MELSEC-A series Motion controller CPU (A series)	AJ71LP21 A1SJ71LP21	AJ71BR11 A1SJ71BR11

※1 : Use CPU and MELSECNET/H network unit function version B or later.

●For CC-Link IE controller network connection

CPU series	CC-Link IE controller network communication unit
MELSEC-Q series (Q mode)	QJ71GP21-SX QJ71GP21S-SX

●For CC-Link (ID) connection

CPU series	CC-Link unit
MELSEC-Q series (Q mode)	QJ61BT11 QJ61BT11N
MELSEC-QnA series	AJ61QBT11 ※1 A1SJ61QBT11 ※1
MELSEC-Q series (A mode) MELSEC-A series Motion controller CPU (A series)	AJ61BT11 ※1 A1SJ61BT11 ※1

※1 : GOT can communicate only with CC-Link units function version B or later and software version J or later.

●For CC-Link (via G4) connection ※1

CPU series	CC-Link unit	Peripheral device unit
MELSEC-Q series (Q mode)	QJ61BT11 QJ61BT11N	AJ65BT-G4-S3 AJ65BT-R2N

※1 : GT11 and GT10 can monitor only the master station.

Inverters

The GOT can be used to set parameters and display alarms.

Model name	GT16/GT15/GT11/GT10: 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	○	×

Servo amplifiers

The GOT can be used to set parameters and display alarms.

Series	Model name	GT16/GT15/GT11: RS-422	RS-232
MELSERVO-J3 series	MR-J3-□A	○	○
	MR-J3-□T	○	○
MELSERVO-J2-Super series	MR-J2S-□A	○	○
	MR-J2S-□CP	○	○
MELSERVO-J2M series	MR-J2M-P8A	○	○
	MR-J2M□DU	○	○

Robot controllers

The GOT can be used to monitor Mitsubishi robot controllers and set their parameters.

Controller name	GT16/GT15/GT11 Connection configuration: Bus connection	CPU direct connection	Computer link	MELSECNET/H ※1	MELSECNET/10 ※1 ※2	CC-Link IE ※1 ※5	CC-Link (ID) ※1 ※3	CC-Link (via G4)	Ethernet ※1
CRnQ-700	○	○ ※4	○	○	○	○	○	○	○
CRnD-700	×	×	×	×	×	×	×	×	○

※1 : Supported by GT16 and GT15 only.
※2 : Supported only when MELSECNET/H is used in NET/10 mode. The GOT terminal cannot be connected to a remote I/O net.
※3 : CC-Link (ID): Connected as CC-Link (intelligent device station).
※4 : The CRnQ-700 can be accessed via RS-232 of the QCPU of a multi-CPU system.
※5 : Indicates CC-Link IE network connection

CNC

The GOT can be used to monitor Mitsubishi CNC C70 and C6/C64 and to set their parameters.

Series	Model name	GT16/GT15/GT11 Connection configuration: Bus connection	CPU direct connection	Computer link	MELSECNET/H ※1	MELSECNET/10 ※1 ※2	CC-Link IE ※1 ※6	CC-Link (ID) ※1 ※3	CC-Link (via G4)	Ethernet ※1
CNC C70	Q173NCCPU	○	○ ※5	○	○	○	○	○	○	○
MELDAS C6/C64	FCA C6 FCA C64	×	○ ※4	×	×	○ ※4	×	○ ※4	×	○ ※4

※1 : Supported by GT16 and GT15 only.
※2 : When MELSECNET/H is used in NET/10 mode, the GOT terminal cannot be connected directly to a remote I/O station.
※3 : CC-Link (ID): Connected as CC-Link (intelligent device station).
※4 : Use NC system software version D0 or later.
※5 : Only a USB interface is available on the Q173NCCPU.
The Q173NCCPU can be accessed via RS-232 of the QCPU of a multi-CPU system.
※6 : Indicates CC-Link IE network connection

■Units usable when connected with MELDAS C6/C64

●For MELSECNET/10 connection

Series	MELSECNET/H (NET/10 mode), MELSECNET/10 module: Optical loop	Coaxial bus
MELDAS C6/C64	FCU6-EX879	FCU6-EX878

●For CC-Link (ID) connection

Series	CC-Link unit
MELDAS C6/C64	FCU6-HR865

●For Ethernet connection

Series	Ethernet module
MELDAS C6/C64	FCU6-EX875

List of connectable models

For details of connection configurations, see the GOT1000 Series Handbook and the GOT1000 Series Connection Manual.

The GOT1000 series allows connection to Mitsubishi PLCs and a variety of other FA devices.

Third party PLCs/motion controllers

The GOT can be connected with third party PLCs through RS-232 communication at up to 115.2kbps or Ethernet.

Manufacturer		Model name			GT16/GT15/GT11/GT10				
					Computer link connection		CPU direct connection		Ethernet connection ※9
					RS-422	RS-232	RS-422	RS-232	
OMRON	SYSMAC CPM	CPM1A			×			×	
		CPM1							
		CPM2A						○	
		CPM2C						×	
	SYSMAC CQM1H	CQM1H			○				
	SYSMAC CJ1	CJ1H						○	
		CJ1G				○	×		
		CJ1M							
	SYSMAC CP1	CP1H						×	
		CP1L							
	SYSMAC α	C200HX						○	
		C200HG							
		C200HE						×	×
	SYSMAC CS1	CS1H							
		CS1G							
		CS1D						○	
	SYSMAC CVM1/CV	CV500			○		○		
		CV1000							
		CV2000			×	×			
		CVM1							
		CQM1						○※2	
		C200HS			○	○	×		
		C200H						×	
		C1000H							
		C2000H							
KEYENCE		KV-700			○	○	×		×
		KV-1000						○	
		KV-3000							
		KV-5000						×	
KOYO ELECTRONICS INDUSTRIES ※1	KOSTAC SU series	SU-5E			○	○	○	○	×
		SU-6B							
		SU-5M							
		SU-6M							
	PZ series	PZ3			×	×	○	○	×
	DirectLOGIC 205 series	D2-240			○	○	×	○	×
		D2-250-1					○		
		D2-260							
	DirectLOGIC 05 series	D0-05AA			○	○	×	○	×
		D0-05AD							
		D0-05AR							
		D0-05DA							
		D0-05DD							
		D0-05DD-D							
		D0-05DR							
		D0-05DR-D							
	DirectLOGIC 06 series	D0-06DD1			○	○	○	○	×
		D0-06DD2							
		D0-06DR							
		D0-06DA							
		D0-06AR							
		D0-06AA							
		D0-06DD1-D							
		D0-06DD2-D							
		D0-06DR-D							
SHARP ※1		JW-21CU			○	×	×	×	×
		JW-31CUH							
		JW-50CUH							
		JW-22CU			○	×	○※3		
		JW-32CUH							
		JW-33CUH							
		JW-70CUH							
		JW-100CUH							
		JW-100CU							
		Z-512J			×	×	○※3		
JTEKT ※1	TOYOPUC series	PC3JG	TIC-6088		○	○※4	×	○※4	×
			TIC-6125						
		PC3J	TIC-5339		○	○※4	○	○※4	
			TIC-5783						
		PC2J	THC-5070		○	○※4	×	○※4	
			THC-5169						
			THC-5173						
			THC-2764					×	
			THC-2994						
			THC-5053						
TOSHIBA ※1	PROSEC T series	T2 (PU224)			×	×	○	×	×
		T2E					○※3		
		T2N							
		T3					○	×	
		T3H							
	V series	model 3000 (S3)			×	×	○	×	
		model 2000 (S2)							
		model 2000 (S2T)							

Manufacturer		Model name	GT16/GT15/GT11/GT10				
			Computer link connection		CPU direct connection		Ethernet connection ※9
			RS-422	RS-232	RS-422	RS-232	
TOSHIBA MACHINE	TCmini series	TC3-01	×	×	×	○	×
		TC3-02					
		TC5-20					
		TC6-00					
		TC8-00					
Hitachi Industrial Equipment Systems ※1	Large-sized H series	H-302 (CPU2-03H)	○※3	○※3	×	○	×
		H-702 (CPU2-07H)					
		H-1002 (CPU2-10H)					
		H-2002 (CPU-20H)					
		H-4010 (CPU3-40H)					
		H-300 (CPU-03Ha)					
		H-700 (CPU-07Ha)					
		H-2000 (CPU-20Ha)					
	H-200 to 252 series	H-200 (CPU-02H, CPE-02H)	×	×	×	○	×
		H-250 (CPU21-02H)					
		H-252 (CPU22-02H)					
		H-252B (CPU22-02HB)					
		H-252C (CPU22-02HC)					
		H-252C (CPE22-02HC)					
	H series board type	H-20DR	×	×	×	○	×
		H-28DR					
		H-40DR					
		H-64DR					
		H-20DT					
		H-28DT					
		H-40DT					
		H-64DT					
		HL-40DR					
		HL-64DR					
	EH-150 series	EH-CPU104	×	×	×	○	×
		EH-CPU208					
		EH-CPU308					
		EH-CPU316					
Hitachi ※1	S10V	LQP510	○	○	○	×	×
		LQP520			×		
	S10mini	LQP800					
		LQP000					
		LQP010					
		LQP011					
		LQP120					
Fuji Electric FA Components & Systems ※1	MICREX-F	F55	○	○	×	×	×
		F70					
		F120S					
		F140S					
		F15□S					
Matsushita Electric Works		FP0-C16CT	×	×	×	○	×
		FP0-C32CT					
		FP1-C24C					
		FP1-C40C					
		FP2	×	○	×	○	×
		FP2SH					
		FP3					
		FP5					
		FP10 (S)					
		FP10SH					
		FP-M (C20TC)	×	×	×	○	
		FP-M (C32TC)					
		FP-Σ					
		FP-X	○	○			
YASKAWA Electric ※10		GL120	○	×	×	○	×
		GL130					
		GL60S		○		×	
		GL60H					
		GL70H					
		CP-9200SH	×	○	×	×	○
		CP-9300MS		×			×
		MP920	○	○		○	○
		MP930	×	×			×
		MP940			○		
		PROGIC-8			×		
		CP-9200 (H)					
		CP-312				×	
		MP2200	○	○		×	○
		MP2300					

Manufacturer		Model name	GT16/GT15/GT11/GT10				
			Computer link connection		CPU direct connection		Ethernet connection ※9
			RS-422	RS-232	RS-422	RS-232	
Yokogawa Electric ※1	FA500	FA500		○※3	×	×	×
	FA-M3	F3SP05	○			○	○
		F3SP08					
		F3SP10	×			×	×
		F3SP20					
		F3SP30					
		F3FP36					
		F3SP21					
		F3SP25					
		F3SP35	○				
		F3SP28					
		F3SP38					
		F3SP53					
		F3SP58					
		F3SP59					
		F3SP66	×	×			
		F3SP67					
	STARDOM	NFCP100	×	×	×	○	○※11
		NFJT100					
Allen-Bradley (Rockwell Automation, Inc)	SLC500 series ※5	SLC500-20	×	×	×	○※1	×
		SLC500-30					
		SLC500-40					
		SLC5/01					
		SLC5/02					
		SLC5/03				○	
		SLC5/04					
		SLC5/05					
	MicroLogix 1000 series (digital CPU) ※5	1761-L10BWA	×	×	×	○	×
		1761-L10BWB					
		1761-L16AWA					
		1761-L16BWA					
		1761-L16BWB					
		1761-L16BBB					
		1761-L32AWA					
		1761-L32BWA					
		1761-L32BWB					
		1761-L32BBB					
		1761-L32AAA					
	MicroLogix 1000 series (analog CPU) ※5 ※6 ※7	1761-L20AWA-5A					
		1761-L20BWA-5A					
		1761-L20BWB-5A					
	MicroLogix 1200 series ※5	1762-L24BWA					
	MicroLogix 1500 series ※5	1764-LSP					
	ControlLogix series	1756-L	×	×	×	○※1	○※8
		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					
	CompactLogix series	1769-L31	×	×	×	○※1	×
		1769-L32E					○※8
		1769-L32C					×
		1769-L35E					○※8
		1769-L35CR					×
	FlexLogix series	1794-L33	×	×	×	○※1	×
		1794-L34					

Manufacturer		Model name	GT16/GT15/GT11/GT10				
			Computer link connection		CPU direct connection		Ethernet connection ※9
			RS-422	RS-232	RS-422	RS-232	
GE Fanuc Automation Corporation ※1	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					
LS Industrial Systems	K300S	K4P-15S	○	○	×	×	×
	K200S	K3P-07□S				○	
	K120S	K7M-D□□□U					
	K80S	K7M-D□□□S (/DC)					
Schneider Electric SA ※1	Modicon Premium	TSX P57 203M	×	×	×	×	○※11
		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					
		140 CPU 671 60					
		140 CPU 113 02					
		140 CPU 113 03					
		140 CPU 434 12A					
		140 CPU 534 14A					
Siemens AG		SIMATIC S7-200 series	×	×	×	○	×
		SIMATIC S7-300 series					
		SIMATIC S7-400 series					

※1 : GT10 cannot be connected.
※2 : The GOT cannot be connected to the CQM1-CPU11 because it does not have an RS-232 interface.
※3 : RS-422 or RS-232 is selectable.
※4 : RS-232/RS-422 converter (TXU-2051) is required.
※5 : Connection to the DH485 network via an adapter (1770-KF3) is possible.
※6 : Connection to the DH485 requires a C-Series or later CPU. (B-Series and earlier models do not support the DH485 protocol.)
※7 : A one-to-one connection requires a D-Series or later CPU. (C-Series and earlier models do not support the DF1 half-duplex format.)
※8 : EtherNet/IP (PCCC protocol) is supported.
※9 : Supported by GT16 and GT15 only.
※10 : GT10 is applicable only to the following models:
CP-9200SH, MP920, MP930, MP940, MP2200, MP2300.
※11 : Only MODBUS®/TCP connection is supported. Ethernet connection is not supported.

※ : Applicable GOT varies depending on the connection destination.
GT16 ··· When connected via RS-232, RS-422/485 or Ethernet: All models (Use the built-in interface of the GOT main unit.)
When connected via ports other than above: All models (Bus connection and network connection are enabled by mounting a communication unit on the GOT main unit.)
GT15 ··· When connected via RS-232: All models (Use the built-in interface of the GOT main unit.)
When other than RS-232: All models (Bus connection and network connection are enabled by mounting a communication unit on the GOT main unit.)
GT11 ··· When connected via RS-232 or RS-422: GT115□-Q□BD
When using bus connection: GT115□-Q□BDQ, GT115□-Q□BDA
Handy GOT ··· When connected via RS-232 or RS-422: GT115□HS-Q□BD
GT10 ··· When connected via RS-232: GT105□-Q□BD, GT1030-LBD2/LBDW2, GT1020-LBD2/LBDW2
When connected via RS-422: GT105□-Q□BD, GT1030-LBD/LBDW, GT1020-LBD/LBDW, GT1020-LBL/LBLW (The GT1020-LBL/LBLW can be used only with the MELSEC-FXCPU.)

List of connectable models

For details of connection configurations, see the GOT1000 Series Handbook and the GOT1000 Series Connection Manual.

■Modules usable when connected with a third party computer link and Ethernet modules

Manufacturer	RS-422	RS-232	Ethernet
OMRON Host link unit/ communication unit/ communication board	C200H-LK202-V1 C500-LK201-V1 CQM1-SCB41 CJ1W-SCU41 CJ1W-SCU21-V1+CP1W-EXT01 CS1W-SCB41 C200HW-COM03 C200HW-COM06 CP1W-CIF11	C200H-LK201-V1 C500-LK201-V1 CS1W-SCU21 CS1W-SCB21 CS1W-SCB41 CJ1W-SCU21-V1 CJ1W-SCU21-V1+CP1W-EXT01 CJ1W-SCU41 C200HW-COM02 C200HW-COM05 C200HW-COM06 CQM1-CIF01 CQM1-CIF02 CQM1-SCB41 CPM1-CIF01 CPM2C-CN111 CPM2C-CIF01-V1 CP1W-CIF01	—
KEYENCE Multi-communication unit	KV-L20R KV-L20 KV-L20V	KV-L20R KV-L20 KV-L20V	—
KOYO ELECTRONICS INDUSTRIES Data communication module/ serial data communication module	U-01DM D2-DCM D0-DCM	U-01DM D2-DCM D0-DCM	—
SHARP Link unit	JW-21CM JW-10CM ZW-10CM	—	—
JTEKT Link unit	THU-2755 THU-2927 THU-5139	—	—
Hitachi Industrial Equipment Systems Intelligent serial port module	COMM-H COMM-2H	COMM-H COMM-2H	—
Hitachi Communication module	LQE565 LQE165	LQE560 LQE060 LQE160	—

Manufacturer		RS-422	RS-232	Ethernet
Fuji Electric FA Components & Systems	RS-232C interface card	—	NV1L-RS2	—
	RS-232C/485 interface capsule	FFK120A-C10	FFK120A-C10	
	General interface module	NC1L-RS4 FFU120B	NC1L-RS2 FFU120B	
Matsushita Electric Works Computer communication unit		AFPX-COM3	AFP2462 AFP3462 AFP5462 AFPX-COM1 AFPX-COM2 AFPX-COM4	—
YASKAWA Electric MEMOBUS module/ communication module		JAMSC-120NOM27100 JAMSC-IF612 217IF 217IF-01	JAMSC-IF60 JAMSC-IF61 CP-217IF 217IF 217IF-01 218IF-01	218IF 218IF-01
Yokogawa Electric Personal computer link module/ Ethernet interface module		LC02-0N F3LC11-2N	LC01-0N LC02-0N F3LC01-1N F3LC11-1N F3LC11-1F F3LC12-1F	F3LE01-5T F3LE11-0T F3LE12-0T
Allen-Bradley (Rockwell Automation, Inc.) EtherNet/IP communication module		—	—	1756-ENBT
GE Fanuc Automation Corporation Communication module		IC693CMM311 IC697CMM711	IC693CMM311 IC697CMM711	—
LS Industrial Systems	Cnet communication unit	G7L-CUEC	G7L-CUEB	—
	Cnet communication module	G6L-CUEC G4L-CUEA	G6L-CUEB G4L-CUEA	
Schneider Electric SA Ethernet unit		—	—	TSX ETY 4102 TSX ETY 5102 140 NOE 771 00 140 NOE 771 10 140 NWM 100 00

Temperature controllers/indicating controllers

The GOT can be used to log data, set parameters, and display alarms.

Manufacturer		Model name	GT16/GT15/GT11 RS-485	RS-422	RS-232
OMRON	Thermac NEO	E5AN E5EN E5CN E5GN	○(2-wire type) ※1	×	○※2
	In-Panel NEO	E5ZN			
Shinko Technos	ACS-13A series	ACS-13A □/□, □, C5	○(2-wire type) ※1	×	○※2
	DCL-33A series	DCL-33A-□/M, □, C5			
	JC series	JCS-33A-□/□□, C5 JCR-33A-□/□□, C5 JCD-33A-□/□□, C5			
	JCM-33A series	JCM-33A-□/□, □C5			
	FCR-100 series	FCR-13A-□/M, C FCR-13A-□/M, C5 FCR-15A-□/M, C FCR-15A-□/M, C5	×	×	○※4
	FCD-100 series	FCD-13A-□/M, C FCD-13A-□/M, C5 FCD-15A-□/M, C FCD-15A-□/M, C5			
	FCR-23A series	FCR-23A-□/M, C FCR-23A-□/M, C5			
	PC-900 series	PC935-□/M, C PC935-□/M, C5 PC955-□/M, C PC955-□/M, C5	○(2-wire type) ※1 × ○(2-wire type) ※1		
	PCD-300 series	PCD-33A-□/M, C5	○(2-wire type) ※1		
	FIR series	FIR-201-M, C FIR-201-M, C5	×		
	JIR-301-M series	JIR-301-M□, C5	○(2-wire type) ※1		○※2
CHINO	LT300 series	LT350, LT370	○(2-wire type) ※1	○	○※2 ※3
	LT400 series	LT450, LT470			
	DZ1000 series	DZ1000 ※7			
	DZ2000 series	DZ2000 ※7			
	LT230 series	LT230		×	○※2
	LT830 series	LT830			
	GT120 series	GT120			
Fuji Electric Systems	Micro Controller X	PXR PXR3/4/5/9 PXG PXG4/5/9 PXH PXH9	○(2-wire type) ※1	×	○※2
YAMATAKE	SDC	SDC20/21	○(4-wire type)	×	○※2
		SDC30/31			
		SDC40A/40B/40G			
		SDC15	○(2-wire type) ※1		
		SDC25/26			
		SDC35/36			
	DMC	DMC10			

Manufacturer		Model name	GT16/GT15/GT11 RS-485	RS-422	RS-232
Yokogawa	GREEN series	UT320 UT321 UT350 UT351 UT420 UT450 UT520 UT550 UT551 UT750 UP350 UP351 UP550 UP750 UM330 UM331 UM350 UM351 US1000	○(2-wire type ※1 /4-wire type)	×	○※2
	UT100 series	UT130 UT150 UT152 UT155 UP150	○(2-wire type) ※1		
	UT2000 series	UT2400 UT2800	○(4-wire type)		
RKC Instrument	SR Mini HG series	H-PCP-J	○(2-wire type) ※1	○	○
		H-PCP-A, H-PCP-B	×		
	SRZ series	Z-TIO, Z-DIO	○(2-wire type) ※1 ※6	○※5	○※2
	CB series (to MODBUS® communication specification)	CB100 CB400 CB500 CB700 CB900	○(2-wire type) ※1	×	○※2

※1 : Supported by GT16 and GT15 only.
GT16: Use RS-422/485 interface or GT15-RS4-TE. GT-15-RS4-9S is not applicable.
GT15: Use GT15-RS4-TE. GT-15-RS4-9S is not applicable.
※2 : If the temperature controller/indicating controller is designed for RS-485, use the RS-232/RS-485 converter supplied by the manufacturer.
※3 : If the temperature controller/indicating controller is designed for RS-422, use the RS-232/RS-422 converter supplied by the manufacturer.
※4 : Only indicating controllers with RS-232 serial communication function can be connected.
※5 : Use a communication extension module (Z-COM).
※6 : Use a communication extension module (Z-COM) depending on the temperature controller system configuration.
※7 : Select a model name that supports the MODBUS® communication function.

Specifications

GT16

General specifications

Item			Specification			
Operating ambient temperature※1	Display		0°C to 50°C			
	Other than display		0°C to 55°C			
Storage ambient temperature			-20°C to 60°C			
Operating ambient humidity			10 to 90%RH, no condensation			
Storage ambient humidity			10 to 90%RH, no condensation			
Vibration resistance	Conforming to JIS B 3502 and IEC 61131-2		Frequency	Acceleration	Half amplitude	Sweep count
		Under intermittent vibration	5 to 9Hz	–	3.5mm	10 times in each of X, Y and Z directions
			9 to 150Hz	9.8m/s²	–	
		Under continuous vibration	5 to 9Hz	–	1.75mm	
			9 to 150Hz	4.9m/s²	–	
Impact resistance	Conforming to JIS B 3502 and IEC 61131-2 (147m/s², 3 times in each of X, Y and Z directions)					
Operating atmosphere	No corrosive gas					
Operating altitude※2	2000m or less					
Installation location	In control panel					
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 : The maximum operating ambient temperature should be 5°C lower than that shown in the table on the left when connecting to a multimedia unit (GT16M-MMR), MELSECNET/H communication unit (GT15-J71LP23-25 or GT15-J71BR13), or CC-Link communication unit (GT15-J61BT13).
※2 : Do not operate or store the GOT unit in pressurized environments where the pressure exceeds the 0m elevation atmospheric pressure, as this could result in abnormal operation.
※3 : Assuming that the device is connected at some 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.
※4 : Index that indicates the level of foreign conductive matter in the operating environment of device. Contamination level 2 denotes contamination by non-conductive matter 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

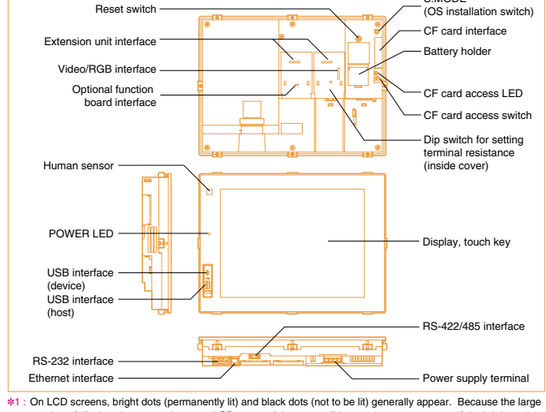
Item		Specification GT1695M-XTBA GT1695M-XTBD	GT1685M-STBA GT1685M-STBD
Display※1	Type	TFT color LCD (high-brightness, wide viewing angle)	
	Screen size	15"	12.1"
	Resolution	XGA: 1024 × 768 [dots]	SVGA: 800 × 600 [dots]
	Display size	304.1(W) × 228.1(H)[mm]	246(W) × 184.5(H)[mm]
	No. of displayed characters	16-dot standard font: 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)
	Display colors	65,536 colors	
	View angle※2	Right/left: 75°, Up: 50°, Down: 60°	Right/left: 80°, Up: 60°, Down: 80°
	Intensity	450 [cd/m²]	470 [cd/m²]
	Intensity adjustment	8-step adjustment	
	Life	Approx. 52,000 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※3	Approx. 50,000 hours or more (Time for display intensity reaches 50% at operating ambient temperature of 25°C)	
Touch panel	Type	Analog resistive type	
	Key size	Min. 2 × 2 [dots] (per key)	
	No. of simultaneous touch points	Simultaneous touch prohibited※4 (1 point only)	
	Life	1,000,000 times or more (operating force 0.98N or less)	
Human sensor	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※5	C drive	15MB built-in flash memory (for saving project data and OS)	
	Life (No. of writings)	100,000 times	
Battery		GT15-BAT type lithium battery	
	Backed up data	Clock data, maintenance time notification data and system log data	
	Life	Approx. 5 years (operating ambient temperature: 25°C)	
Built-in interface	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)	
	RS-422/485	RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: 14-pin (female) Application: Communication with connected devices	
	Ethernet	Data transfer system: 100BASE-TX, 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)	
	USB	USB (full-speed 12Mbps), host 1ch Connector shape: TYPE-A Application: Data transfer and storage	
		USB (full-speed 12Mbps), device 1ch Connecter shape: TYPE Mini-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	2ch for communication unit/optional unit installation	
Buzzer output		Single tone (tone length adjustable)	
Protective construction		JEM1030 Front: IP67f※6 In panel: IP2X	
External dimensions (without USB port cover)		397(W) × 296(H) × 61(D)[mm]	316(W) × 242(H) × 52(D)[mm]
Panel cut dimensions		383.5(W) × 282.5(H)[mm]	302(W) × 228(H)[mm]
Weight (excl. mounting brackets)		5.0[kg]	2.7[kg]
Applicable software packages	Screen design software	GT Designer2 Version 2.90U or later	
	Simulation software	GT Simulator2 Version 2.90U or later	

Power supply specifications

Item	Specification GT1695M-XTBA	GT1685M-STBA	GT1695M-XTBD	GT1685M-STBD
Input power supply voltage	100 to 240VAC (+10%, -15%)		24VDC (+25%, -20%)	
Input frequency	50/60Hz ±5%		–	
Input maximum apparent power	150VA (at max. load)	110VA (at max. load)	–	
Power consumption	64W or less	46W or less	60W or less	40W or less
With backlight off	38W or less	32W or less	30W or less	26W or less
Inrush current	26A or less (4ms, at max. load)		12A or less (75ms, at max. load)	11A or less (40ms, 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			
Tightening torque (terminal block's terminal screws)	0.5 to 0.8 [N·m]			

Component names

GT1695/GT1685



※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 : LC panels have characteristics of tone reversal. Note that even within the indicated view angles, the screen display may not be clear enough depending on the display color.
※3 : Using the GOT screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.
※4 : An analog resistive touch display is used. When 2 points on the screen are touched simultaneously, if a switch is located the middle of the 2 points then the switch will be activated. Therefore, avoid touching 2 points on the screen simultaneously.
※5 : The memory is a ROM that permits overwriting of new data without having to delete the existing data.
※6 : With the USB environmentally protective cover is on, pressing firmly the portion marked "△" makes it conform to IP67f (JEM1030). (The USB interface conforms to IP2X (JEM1030) when a USB cable or a USB memory 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 splashing oil or chemicals for a long time or it is soaked with oil mist.

Specifications

GT15

General specifications

Item		Specification				
Operating ambient temperature※1	Display	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
		Under intermittent vibration	5 to 9Hz	–	3.5mm	10 times in each of X, Y and Z directions
			9 to 150Hz	9.8m/s²	–	
		Under continuous vibration	5 to 9Hz	–	1.75mm	
			9 to 150Hz	4.9m/s²	–	
Impact resistance		Conforming to JIS B 3502 and IEC 61131-2 (147m/s², 3 times in each of X, Y and Z directions)				
Operating atmosphere		No corrosive gas				
Operating altitude※4		2000m or less				
Installation location		In control panel				
Overvoltage 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 specifications when using the MELSECNET/10 communication unit (GT15-75J71LP23-Z or GT15-75J71BR13-Z) or CC-Link communication unit (GT15-75J61BT13-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 the 0m elevation atmospheric pressure, as this could result in abnormal operation.
※5 : Assuming that the device is connected at some 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 device. Contamination level 2 denotes contamination by non-conductive matter 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	GT1585V-STBA GT1585V-STBD GT1585-STBA GT1585-STBD	GT1575V-STBA GT1575V-STBD GT1575-STBA GT1575-STBD	GT1575-VTBA GT1575-VTBD	GT1575-VNBA GT1575-VNBD	GT1572-VNBA GT1572-VNBD	GT1565-VTBA GT1565-VTBD	GT1562-VNBA GT1562-VNBD
Display※1	Type	TFT color LCD (high-brightness, wide viewing angle)				TFT color LCD		TFT color LCD (high-brightness, wide viewing angle)	TFT color LCD
	Screen size	15"	12.1"	10.4"				8.4"	
	Resolution	XGA: 1024 × 768 [dots]	SVGA: 800 × 600 [dots]	VGA: 640 × 480 [dots]					
	Display size	304.1(W) × 228.1(H) [mm]	246(W) × 184.5(H) [mm]	211(W) × 158(H) [mm]				171(W) × 128(H) [mm]	
	No. of displayed characters	16-dot standard font: 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	65,536 colors				256 colors	16 colors	65,536 colors	16 colors
	View angle※6	Right/left: 75°, Up: 50°, Down: 60°	GT1585V Right/left: 80°, Up: 40°, Down: 50° GT1585 Right/left: 65°, Up: 45°, Down: 55°	Right/left/up/down: 85°	Right/left/up/down: 85°	Right/left: 45°, Up: 30°, Down: 20°		Right/left: 65°, Up: 50°, Down: 60°	Right/left: 45°, Up: 20°, Down: 20°
	Contrast adjustment	–							
	Intensity	450 [cd/m²]	GT1585V: 350 [cd/m²] GT1585: 400 [cd/m²]	400 [cd/m²]	380 [cd/m²]	200 [cd/m²]		380 [cd/m²]	150 [cd/m²]
	Intensity adjustment	8-step adjustment				4-step adjustment		8-step adjustment	4-step adjustment
	Life	Approx. 52,000 hours (operating ambient temperature: 25°C)	Approx. 50,000 hours (operating ambient temperature: 25°C)	Approx. 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※2	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	Type	Analog resistive type	Matrix resistive type						
	No. of touch keys	–	1900 keys/screen (38 lines × 50 columns)	1200 keys/screen (30 lines × 40 columns)					
	Key size	Min. 2 × 2 [dots] (per key)	Min. 16 × 16 [dots] (per key) (16 × 8 only on lowermost line)	Min. 16 × 16 [dots] (per key)					
	No. of simultaneous touch points	Simultaneous touch prohibited※3 (1 point only)	Max. 2 points						
	Life	1,000,000 times or more (operating force 0.98N or less)							
Human sensor	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※4	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)	5MB built-in flash memory (for saving projectdata and OS)
	Life (No. of writings)	100,000 times							
Battery	Backed up data	GT15-BAT type lithium battery (optional)							
	Life	Clock data and maintenance time notification data							
Built-in interface	RS-232	Approx. 5 years (operating ambient temperature: 25°C)							
	USB	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)							
	CF card	USB (full-speed 12Mbps), device 1ch Connector shape: TYPE Mini-B Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)							
	Optional function board	Compact flash slot, 1ch, Connector shape: TYPEⅠ, Application: Data transfer, data storage, GOT startup							
	Extension unit	1ch for optional function board installation							
		2ch for communication unit/optional unit installation							
Buzzer output		Single tone (tone length adjustable)							
Protective construction		JEM1030 Front: IP67f※5 In panel: IP2X							
External dimensions (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]				241(W) × 192(H) × 52(D) [mm]	
Panel cut dimensions		383.5(W) × 282.5(H) [mm]	302(W) × 228(H) [mm]	289(W) × 200(H) [mm]				227(W) × 176(H) [mm]	
Weight (excl. mounting brackets)		5.0 [kg]	2.8 [kg]	GT1575V: 2.3 [kg] GT1575: 2.4 [kg]	2.4 [kg]	2.3 [kg]		1.9 [kg]	
Applicable software packages	Screen design software	GT Designer2 Version 2.90U or later							
	Simulation software	GT Simulator2 Version 2.90U or later							

Power supply specifications

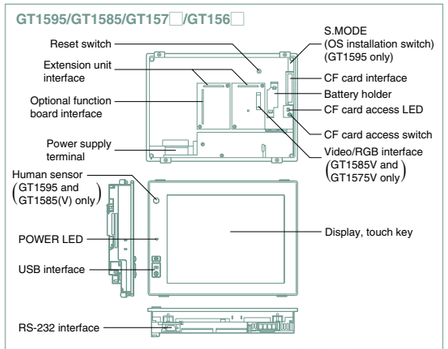
Item	Specification								
	GT1595-XTBA	GT1585V-STBA GT1585-STBA	GT1575V-STBA GT1575-STBA GT1575-VTBA GT1575-VNBA GT1572-VNBA GT1565-VTBA GT1562-VNBA	GT1595-XTBD	GT1585V-STBD GT1585-STBD	GT1575V-STBD GT1575-STBD GT1575-VTBD GT1575-VNBD GT1572-VNBD GT1565-VTBD GT1562-VNBD	GT1555-VTBD	GT1555-QTBD	GT1555-QSBD	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 (2380mA/24VDC)	43W or less (1790mA/24VDC)	41W or less (1710mA/24VDC)	19W or less (790mA/24VDC)	18W or less (750mA/24VDC)	17W or less (710mA/24VDC)	15W or less (620mA/24VDC)
With backlight off	30W or less	28W or less	28W or less	32W or less (1330mA/24VDC)	30W or less (1250mA/24VDC)	30W or less (1250mA/24VDC)	14W or less (580mA/24VDC)	13W or less (540mA/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									
Tightening torque (terminal block's terminal screws)	0.5 to 0.8 [N·m]									

Performance specifications

Item		Specification			
		GT1555-VTBD	GT1555-QTBD	GT1555-QSBD	GT1550-QLBD
Display※1	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	16-dot standard font: 40 chars. × 30 lines (2-byte) 12-dot standard font: 53 chars. × 40 lines (2-byte)	16-dot standard font: 20 chars. × 15 lines (2-byte) 12-dot standard font: 26 chars. × 20 lines (2-byte)		
	Display colors	65,536 colors		4,096 colors	Monochrome 16 gray scale
	View angle※6	Right/left: 80°, Up: 80°, Down: 70°	Right/left: 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			
	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		Approx. 58,000 hours or more	
		(Time for display intensity reaches 50% at operating ambient temperature of 25°C)			
Touch panel※7	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. 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)			
Human sensor	Detection distance	–			
	Detection range	–			
	Detection delay time	–			
	Detection temperature	–			
Memory※4	C drive	9MB built-in flash memory (for saving project data and OS)			
	Life (No. of writings)	100,000 times			
Battery	Backed up data	GT15-BAT type lithium battery (optional)			
	Life	Clock data and maintenance time notification data			
Built-in interface	RS-232	Approx. 5 years (operating ambient temperature: 25°C)			
	USB	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)			
	CF card	USB (full-speed 12Mbps), device 1ch, Connector shape: TYPE Mini-B Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)			
	Optional function board	Compact flash slot, 1ch, Connector shape: TYPEⅠ Application: Data transfer, data storage, GOT startup			
	Extension unit	1ch for optional function board installation			
		1ch for communication unit/optional unit installation			
Buzzer output		Single tone (tone length adjustable)			
Protective construction		JEM1030 Front: IP67f※5 In panel: IP2X			
External dimensions (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	GT Designer2 Version 2.90U or later			
	Simulation software	GT Simulator2 Version 2.90U or later			

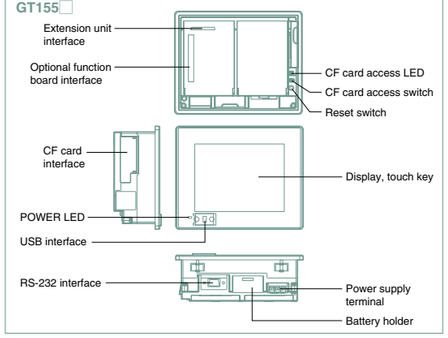
Component names

GT1595/GT1585/GT157□/GT156□



※ : This illustration shows GT1585V-STBA.

GT155□



※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 GOT screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.
※3 : An analog resistive touch display is used. When 2 points on the screen are touched simultaneously, if a switch is located the middle of the 2 points then the switch will be activated. Therefore, avoid touching 2 points on the screen simultaneously.
※4 : The memory is a ROM that permits overwriting of new data without having to delete the existing data.
※5 : With the USB environmentally protective cover is on, the main unit conforms to IP67f (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 splashing oil or chemicals for a long time or it is soaked with oil mist.
※6 : LC panels have characteristics of tone reversal. Note that even within the indicated view angles, the screen display may not be clear enough depending on the display color.
※7 : The GT1555-VTBD can be operated with a stylus pen.
Using a stylus pen enables touching small switches without fault.
Use a stylus pen within the following specifications.
• Material: Polyacetal resin
• Point tip radius: 0.8mm or more

Specifications

GT11 GT10

General specifications

Item		Specification					
Operating ambient temperature	Display	0°C to 50°C※5					
	Other than display	0°C to 55°C (horizontal installation), 0°C to 50°C (vertical installation)※5					
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	Acceleration	Half amplitude	Sweep count	
		Under intermittent vibration	5 to 9Hz	–	3.5mm	10 times in each of X, Y and Z directions	
			9 to 150Hz	9.8m/s²	–		
		Under continuous vibration	5 to 9Hz	–	1.75mm		
			9 to 150Hz	4.9m/s²	–		
Impact resistance		Conforming to JIS B 3502 and IEC 61131-2 (147m/s², 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					
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.※7					

※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 the 0m elevation atmospheric pressure, as this could result in abnormal operation.
※3 : Assuming that the device is connected at some 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.
※4 : Index that indicates the level of foreign conductive matter in the operating environment of 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 GT115□HS
※6 : Excluding GT115□HS
※7 : The 5VDC type requires no grounding.

Performance specifications

Item		Specification							
		GT1155-QTBD	GT1155-QSBD	GT1150-QLBD	GT1155HS-QSBD	GT1150HS-QLBD	GT1155-QTBDQ GT1155-QTBDA	GT1155-QSBDQ GT1155-QSBDA	GT1150-QLBDQ GT1150-QLBDA
Display※1	Type	TFT color LCD	STN color LCD	STN monochrome (black/white) LCD	STN color LCD	STN monochrome (black/white) LCD	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)			115(W) × 86(H) [mm]		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	256 colors	Monochrome (black/white) 16 gray scale	256 colors		Monochrome (black/white) 16 gray scale
	View angle	Right/left: 70°, Up: 70°, Down: 50° (in horizontal display mode)	• Right/left: 50°, Up: 50°, Down: 60° (Hardware versions A and B) (In horizontal display mode) • 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: 50°, 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°	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				–	16-step adjustment	
	Intensity	400 [cd/m²]	• 350 [cd/m²] (Hardware versions A and B) • 380 [cd/m²] (Hardware version C or later)	220 [cd/m²]	• 350 [cd/m²] (Hardware versions A and B) • 380 [cd/m²] (Hardware version C or later)	220 [cd/m²]	400 [cd/m²]	380 [cd/m²]	220 [cd/m²]
	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		Approx. 54,000 hours or more	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	Matrix resistive 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	3MB built-in flash memory (for saving project data and OS)							
	Life (No. of writings)	100,000 times							
	D drive	512KB built-in SRAM (battery backup)							
Battery		GT11-50BAT type lithium battery							
	Backed up data	Clock data, alarm history and recipe data							
	Life	Approx. 5 years (operating ambient temperature: 25°C)							
Built-in interface	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	RS-422, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with connected devices			–		–		
	RS-422/232	–			RS-422/232, 1ch (Select one when using.) Transmission speed: 115200/57600/38400/19200/9600/4800bps, Connector shape: Round type, 32-pin (male) Application: Communication with connected devices		–		
	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.)			RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps, Connector shape: Mini-DIN 9-pin (female) Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function, etc.)		RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps, Connector shape: 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)	1ch for optional function board installation				(Embedded in main unit)		
Buzzer output		Single tone (tone length adjustable)							
Protective construction※4		JEM1030 Front: IP67f In panel: IP2X			JEM1030 Front: IP65f		JEM1030 Front: IP67f In panel: IP2X		
External dimensions (without USB port cover)		164(W) × 135(H) × 56(D) [mm]			176(W) × 220(H) × 93(D) [mm]		167(W) × 135(H) × 65(D) [mm]		
Panel cut dimensions		153(W) × 121(H) [mm]			–		153(W) × 121(H) [mm]		
Weight		0.7 [kg] (excl. mounting brackets)			1.0 [kg] (main unit only)		0.9 [kg] (excl. mounting brackets)		
Applicable software packages	Screen design software	GT Designer2 Version 2.90U or later							
	Simulation software	GT Simulator2 Version 2.90U or later							

Power supply specifications

Item	Specification						
	GT1155-QTBD GT1155-QSBD GT1155HS-QSBD	GT1150-QLBD GT1150HS-QLBD	GT1155-QTBDQ GT1155-QTBDA	GT1155-QSBDQ GT1155-QSBDA	GT1150-QLBDQ GT1150-QLBDA	GT1055-QSBD	GT1050-QBBD
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)	9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)
With backlight off	4.32W or less (180mA/24VDC)		5.04W or less (210mA/24VDC)			4.32W or less (180mA/24VDC)	
Inrush current	15A or less (2ms, at max. load)		26A or less (4ms, at max. load)			15A or less (26.4V) 2ms	
Permissible instantaneous failure time	Within 5ms		Within 10ms			Within 5ms	
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			Noise voltage 1000Vp-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 [mm²]※1						
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 GT115□HS

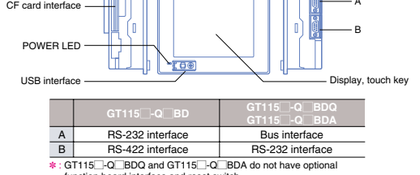
Performance specifications

Item		Specification	
		GT1055-QSBD	GT1050-QBBD
Display※1	Type	STN color LCD	STN monochrome (blue/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 (blue/white) 16 gray scale
	View angle	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	380 [cd/m²]	260 [cd/m²]
	Life※2	Approx. 50,000 hours (Time for display contrast reaches 20% at operating ambient temperature of 25°C) Guarantee one year	
Backlight		Cold-cathode fluorescent tube (not replaceable) with backlight OFF detection function. Backlight off time and screen save time can be set.	
	Life	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) Guarantee one year	
Touch panel	Type	Matrix 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※3	Built-in flash ROM for saving project data (3 MB or less) and OS	
	Life (No. of writings)	100,000 times	
Battery		GT11-50BAT type lithium battery	
	Backed up data	Clock data, alarm history and recipe data	
	Life	Approx. 5 years (operating ambient temperature: 25°C) Guaranteed life: within one year after date of manufacture	
Built-in interface	RS-422	RS-422, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with PLCs	
	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	USB (full-speed 12Mbps), device 1ch Connector shape: TYPE Mini-B (receptacle) Application: Communication with personal computer (project data upload/download, OS installation, transparent function)	
	Memory board	For installing memory board (GT10-50FMB) 1ch	
Buzzer output		Single tone (tone length adjustable/none)	
Protective construction※4		Conforming to IP67f (JEM1030) (front panel)	
External dimensions		164(W) × 135 (H) × 56 (D)[mm]	
Panel cut dimensions		153(W) × 121(H)[mm]	
Weight		0.7kg (excl. mounting brackets)	
Applicable software package		GT Designer2 Version 2.90U or later	

※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 GOT 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 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.

Component names

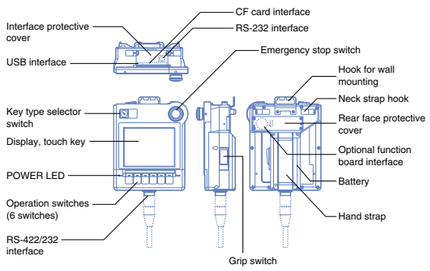
GT11



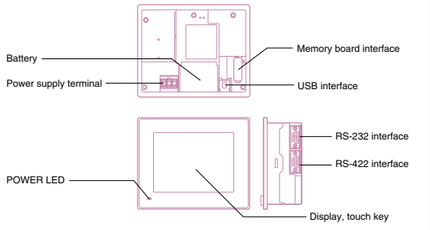
	GT115□-Q□BD	GT115□-Q□BDQ GT115□-Q□BDA
A	RS-232 interface	Bus interface
B	RS-422 interface	RS-232 interface

※ : GT115□-Q□BDQ and GT115□-Q□BDA do not have optional function board interface and reset switch.

Handy GOT



GT105□



Specifications

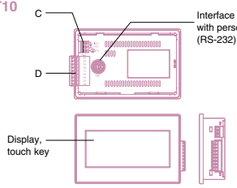
GT10

Power supply specifications

Item		Specification				
		GT1030-LBD GT1030-LWD GT1030-LBD2 GT1030-LWD2	GT1030-LBDW GT1030-LWDW GT1030-LBDW2 GT1030-LWDW2	GT1020-LBD GT1020-LWD GT1020-LBD2 GT1020-LWD2	GT1020-LBDW GT1020-LWDW GT1020-LBDW2 GT1020-LWDW2	GT1020-LBL GT1020-LWL GT1020-LBLW GT1020-LWLW
Input power supply voltage		24VDC (+10%, -15%), ripple voltage of 200mV or less				5VDC (±5%), supplied from PLC communication cable
Input frequency		–				
Input maximum apparent power		–				
Power consumption		2.2W or less (90mA/24VDC)		1.9W or less (80mA/24VDC)		1.1W or less (220mA/5VDC)
	With backlight off	1.7W or less (70mA/24VDC)		1.2W or less (50mA/24VDC)		0.6W or less (120mA/5VDC)
Inrush current		18A or less (26.4DCV) 1ms		13A or less (26.4DCV) 1ms		–
Permissible instantaneous failure time		Within 5ms				–
Noise resistance		Noise voltage 1000Vp-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	Single-wire installation	0.14 to 1.5mm², AWG26 to AWG16 (single wire), 0.14 to 1.0mm², AWG26 to AWG16 (stranded wire) 0.25 to 0.5mm², AWG24 to AWG20 (bar terminal with insulation sleeve)				
	Two-wire installation	0.14 to 0.5mm², AWG26 to AWG20 (single wire), 0.14 to 0.2mm², AWG26 to AWG24 (stranded wire)				
Clamp terminal		AI2.5-6BU, AI0.34-6TQ, AI0.5-6WH (made by Phoenix Contact)				
Tightening torque (terminal block's terminal screws)		0.22 to 0.25 [N·m]				

Component names

GT10



	GT1030-LBD GT1030-LWD GT1030-LBDW GT1030-LWDW GT1020-LBD GT1020-LWD GT1020-LBDW GT1020-LWDW	GT1020-LBL GT1020-LWL GT1020-LBLW GT1020-LWLW	GT1030-LBD2 GT1020-LBD2 GT1030-LWD2 GT1020-LWD2 GT1030-LBDW2 GT1020-LBDW2 GT1030-LWDW2 GT1020-LWDW2
C	Power supply terminal	–	Power supply terminal
D	RS-422 interface	RS-422 interface, Power supply terminal	RS-232 interface

Performance specifications

Item		Specification							
		GT1030-LBD GT1030-LWD	GT1030-LBDW GT1030-LWDW	GT1030-LBD2 GT1030-LWD2	GT1030-LBDW2 GT1030-LWDW2	GT1020-LBD GT1020-LWD GT1020-LBL GT1020-LWL	GT1020-LBDW GT1020-LWDW GT1020-LBLW GT1020-LWLW	GT1020-LBD2 GT1020-LWD2	GT1020-LBDW2 GT1020-LWDW2
Display※1	Type	STN monochrome (black/white) LCD							
	Screen size	4.5"				3.7"			
	Resolution	288 × 96 [dots] (in horizontal mode)				160 × 64 [dots] (in horizontal mode)			
	Display size	109.42(W) × 35.98(H)[mm](in horizontal mode)				86.4(W) × 34.5(H)[mm](in horizontal mode)			
	No. of displayed characters	16-dot standard font: 36 chars. × 6 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)				16-dot standard font: 20 chars. × 4 lines (1-byte) or 10 chars. × 4 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/m²] (in green)	300 [cd/m²] (in white)	200 [cd/m²] (in green)	300 [cd/m²] (in white)	200 [cd/m²] (in green)	300 [cd/m²] (in white)	200 [cd/m²] (in green)	300 [cd/m²] (in white)
	Intensity adjustment	8-step adjustment				–			
	Life※2	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/flashing/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)				Min. 2 × 2 [dots] (per key)			
	No. of simultaneous touch points	Max. 2 points				Impossible (If there is a switch near the center of the pressed keys, the switch may function.)			
	Life	1,000,000 times or more (operating force 0.98N or less)							
Memory	User memory※3	Built-in flash ROM for saving project data (1.5MB or less) and OS				Built-in flash ROM for saving project data (512KB or less), OS, alarm history and recipe data			
	Life (No. of writings)	100,000 times							
Battery		GT11-50BAT type lithium battery				–			
	Backed up data	Clock data, alarm history and recipe data				–			
	Life	Approx. 5 years (operating ambient temperature: 25°C)		Guaranteed life: within one year after date of manufacture		–			
Built-in interface	For communication with PLC	RS-422, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		RS-422, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC	
	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 IP67f (JEM1030) (front panel)							
External dimensions		145(W) × 76(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		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 Designer2 Version 2.90U or later							

※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 GOT 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 does not guarantee protection in all users' environments.

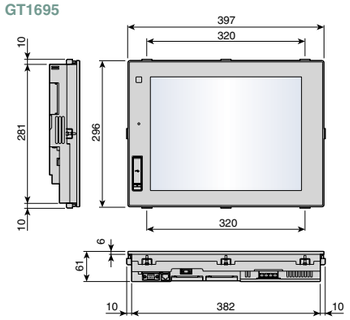
External dimensions

GOT main unit

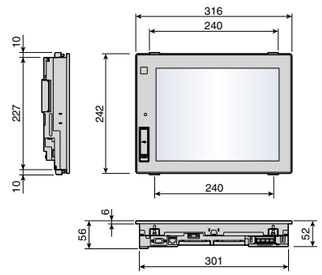
External dimensions

(Unit: mm)

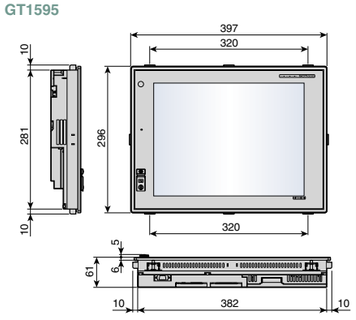
GT1695



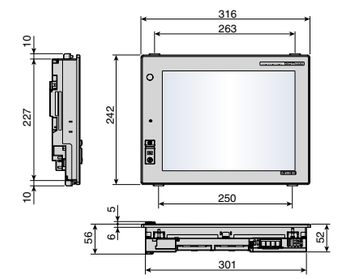
GT1685



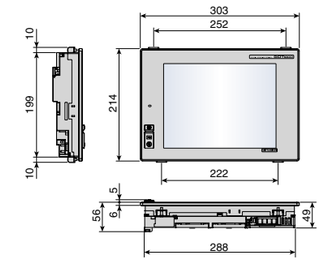
GT1595



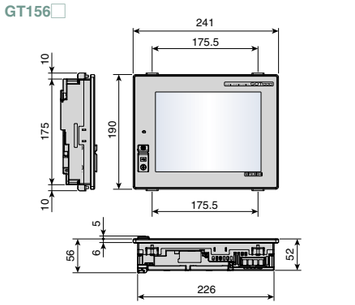
GT1585



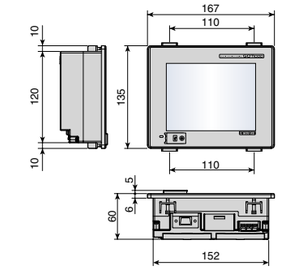
GT157□



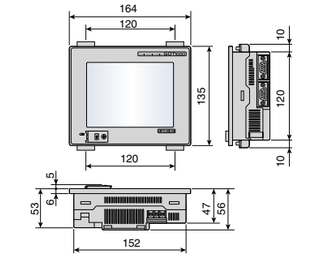
GT156□



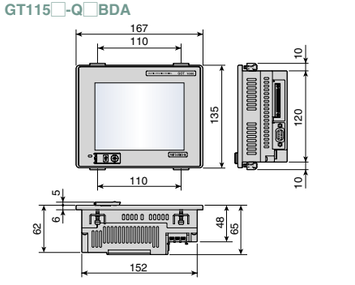
GT155□



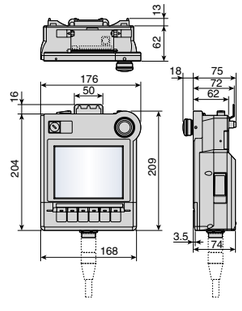
GT115□-Q□BD



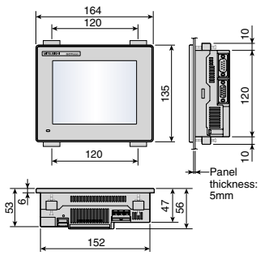
GT115□-Q□BDQ
GT115□-Q□BDA



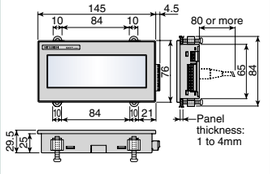
Handy GOT



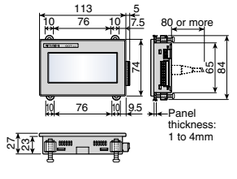
GT105□



GT1030



GT1020

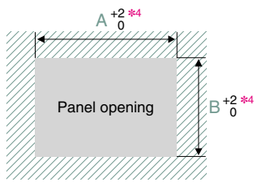


External dimensions

Panel cut dimensions

●**When GOT is installed** (Unit: mm)

Screen size	Type of GOT main unit	A	B
15"	GT1695	383.5	282.5
	GT1595		
12.1"	GT1685	302	228
	GT1585※1		
10.4"	GT157□※2	289	200
8.4"	GT156□	227	176
5.7"	GT155□※3	153	121
	GT115□※3		
	GT105□		
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 GT1030 and GT1020, the tolerance is +1/0.

For compatibility with GOT900 series, see "Backward compatibility" (page 77).

●**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 GT15 User's Manual.

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** (Unit: mm)

Item			GT1695	GT1685	GT1595	GT1585	GT157□	GT156□	GT155□
A	GOT only		50 or more (20 or more)				50 or more (31 or more)	50 or more (36 or more)	65 or more
	When bus connection unit is installed								
	When serial communication unit is installed								
	When RS-422 conversion unit is installed		50 or more	51 or more	50 or more	51 or more	68 or more	73 or more	–
	When Ethernet communication unit is installed		–		50 or more (20 or more)				50 or more (40 or more)
	When CC-Link communication unit (GT15-J61BT13) is installed		50 or more (20 or more)						50 or more (32 or more)
	When CC-link IE controller network communication unit is installed		50 or more (20 or more)						
	When MELSECNET/H communication unit (coaxial) is installed		50 or more (20 or more)	50 or more (24 or more)	50 or more (20 or more)	50 or more (24 or more)	50 or more (38 or more)	50 or more	72 or more
	When MELSECNET/H communication unit (optical) is installed		50 or more (20 or more)※1						
	When printer unit is installed		50 or more (20 or more)				50 or more (31 or more)	50 or more (36 or more)	50 or more
	When multimedia unit is installed		50 or more (20 or more)		–				
	When video input unit is installed	GT16M-V4	50 or more (20 or more)		–				
		GT15V-75V4	–			50 or more (20 or more)※2		–	
	When RGB input unit is installed	GT16M-R2	50 or more (20 or more)		–				
		GT15V-75R1	–			50 or more (20 or more)※3		–	
	When video/RGB input unit is installed	GT16M-V4R1	50 or more (20 or more)		–				
		GT15V-75V4R1	–			50 or more (20 or more)※3		–	
	When RGB output unit is installed	GT16M-ROUT	50 or more (20 or more)		–				
		GT15V-75ROUT	–			50 or more (20 or more)※3		–	
	When CF card unit is installed		50 or more (20 or more)				50 or more (31 or more)	50 or more (36 or more)	65 or more
	When CF card extension unit is installed								
	When audio output unit is installed								
	When external input/output unit is installed								
B			80 or more (20 or more)						
C	(When CF card is not used)		50 or more (20 or more)						
	(When CF card is used)		50 or more (20 or more)						100 or more
D			50 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.
The values in the table are given for your reference.
※2 : The distances required when the coaxial cable 3C-2V (JIS C 3501) is used.
※3 : 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** (Unit: mm)

GOT main unit	A, D	B	C		E
			When CF card is not used	When CF card is used	
GT1155 GT1150	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)

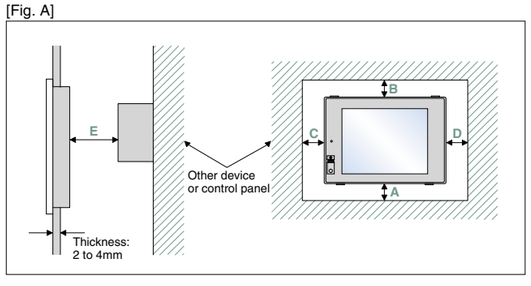
※1 : 50 or more (20 or more) in the case of vertical installation
※2 : 80 or more (20 or more) in the case of vertical installation

●**GT10** (Unit: mm)

GOT main unit	A	B	C	D	E
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)
GT1030 GT1020	50 or more (20 or more※1)	50 or more (20 or more)	50 or more (20 or more)	50 or more	80 or more (20 or more※2)

※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 interface is used for connecting multiple GOTs.
50 or more when an RS-232 interface is used for using an RS-232/USB conversion adapter.
※3 : 80 or more when using a USB cable or a memory board.

[Fig. A]

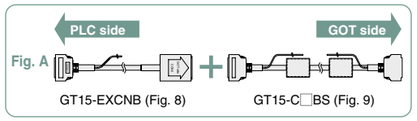


●Dimensions shown in parentheses apply when there are no devices nearby (contactor, etc.) which produce radiated noise or heat. Even with these dimensions, however, the ambient temperature must never exceed 55°C.
Depending on the unit and cable being used, a cable length longer than dimension A (or dimension D for the GT10) in above [Fig. A] may be required.

Bus connection cables

Cable model name	Cable length	External dimensions
GT15-QC□B	0.6, 1.2, 3, 5, 10m	Fig. 1
GT15-QC□BS	15, 20, 25, 30, 35m	Fig. 1
GT15-C□NB	1.2, 3, 5m	Fig. 2
GT15-AC□B	0.6, 1.2, 3, 5m	Fig. 3
GT15-A370C□B-S1	1.2, 2.5m	Fig. 4
GT15-A370C□B	1.2, 2.5m	Fig. 5
GT15-A1SC□B	0.7, 1.2, 3, 5m	Fig. 6
GT15-A1SC□NB	0.45, 0.7, 3, 5m	Fig. 7
GT15-C□EXSS-1※1	10.6, 20.6, 30.6m	Figs. 8 & 9
GT15-EXCNB	0.5m	Fig. 8
GT15-C□BS	0.7, 1.2, 3, 5, 10, 20, 30m	Fig. 9
GT15-J2C10B	1m	Fig. 10

※1 : GT15-C□EXSS-1 is a set consisting of GT15-EXCNB and GT15-C□BS. (See Fig. A.)



RS-422 cables

Cable model name	Cable length	External dimensions
GT16-C02R4-9S	0.2m	Fig. 11
GT01-C30R4-25P	3m	Fig. 12
GT01-C□R4-25P	10, 20, 30m	Fig. 13
GT01-C□R4-8P	1, 3, 10, 20, 30m	Fig. 14
GT10-C□R4-8P	1, 3, 10, 20, 30m	Fig. 15
GT10-C□R4-25P	3, 10, 20, 30m	Fig. 16
GT10-C10R4-8PL	1m	Fig. 17

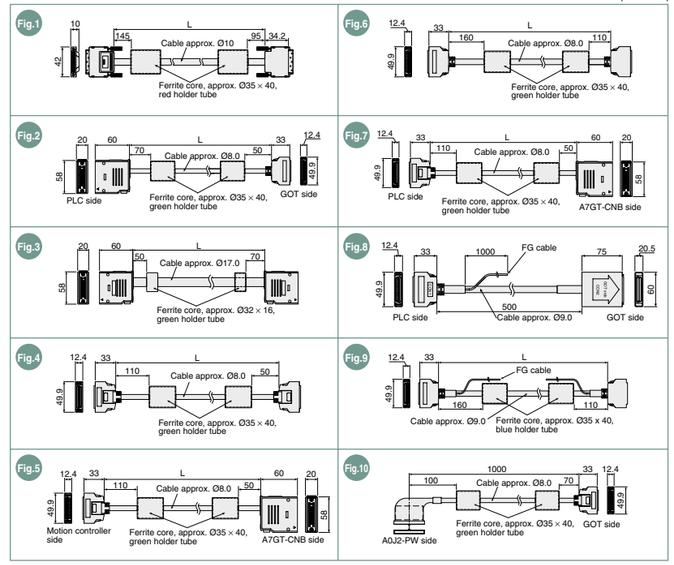
RS-232 cables

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

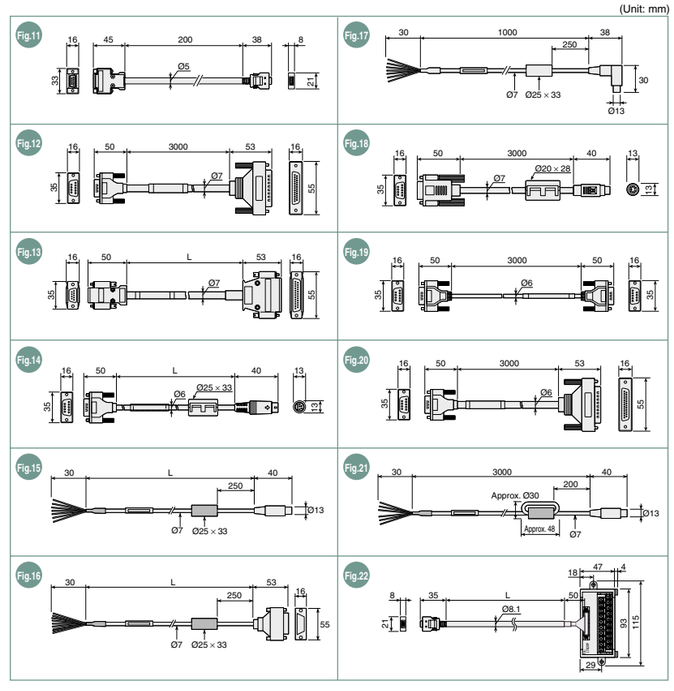
RS-485 terminal block conversion unit

Model name	Cable length	External dimensions
FA-LTBGTR4CBL□	0.5, 1, 2m	Fig. 22

(Unit: mm)



(Unit: mm)



External dimensions

Communication units/optional units

●Communication units/bus extension connector boxes

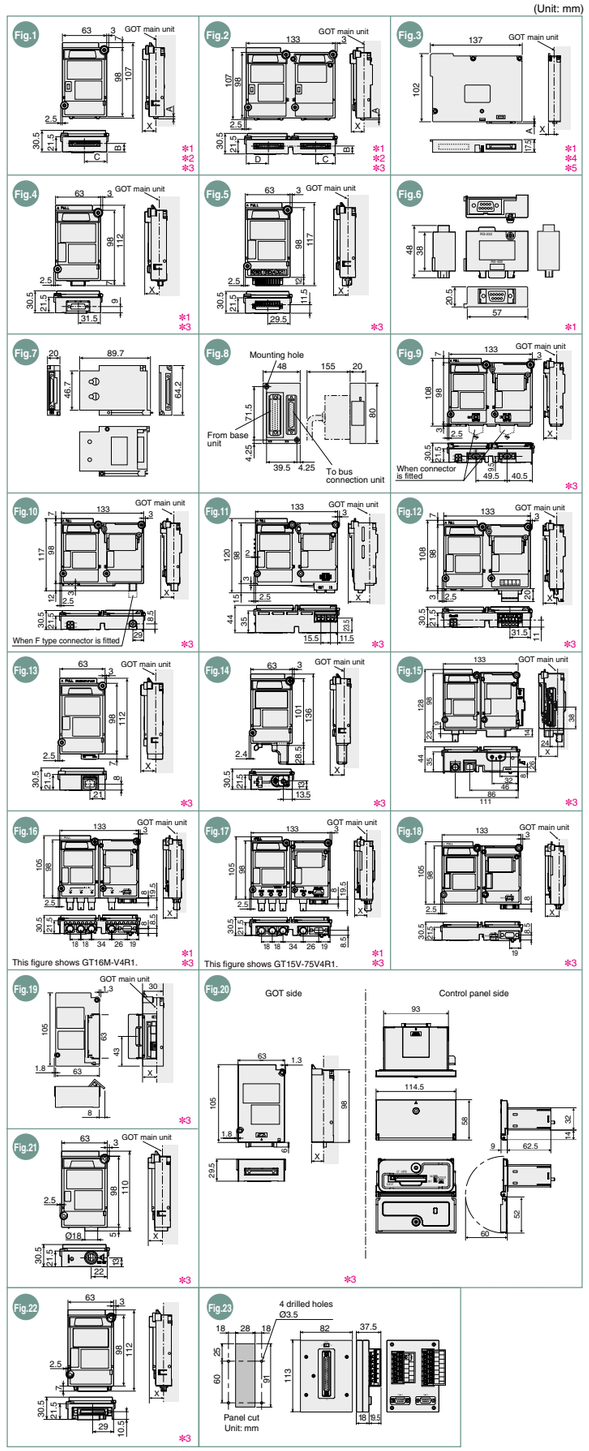
Product name			Model name	External dimensions
Bus connection unit	Standard model of bus connection unit for QCPU (Q mode)/motion controller CPU (Q Series)	1ch	GT15-QBUS	Fig. 1
		2ch	GT15-QBUS2	Fig. 2
	Standard model of bus connection unit for QnA/ACPU/motion controller CPU (A Series)	1ch	GT15-ABUS	Fig. 1
		2ch	GT15-ABUS2	Fig. 2
	Thin model of bus connection unit for QCPU (Q mode)/motion controller CPU (Q Series)	1ch	GT15-75QBUSL	Fig. 3
		2ch	GT15-75QBUS2L	Fig. 3
	Thin model of bus connection unit for QnA/ACPU/motion controller CPU (A Series)	1ch	GT15-75ABUSL	Fig. 3
		2ch	GT15-75ABUS2L	Fig. 3
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 (terminal block)		GT15-RS4-TE	Fig. 5
RS-422 conversion unit	RS-232→RS-422 conversion unit (9-pin)		GT15-RS2T4-9P	Fig. 6
	RS-232→RS-422 conversion unit (25-pin)		GT15-RS2T4-25P	Fig. 6
Bus extension connector box			A9GT-QCNB	Fig. 7
Bus connector conversion box			A7GT-CNB	Fig. 8
MELSECNET/H communication unit	Optical loop unit		GT15-J71LP23-25	Fig. 9
	Coaxial bus unit		GT15-J71BR13	Fig. 10
CC-Link IE controller network communication unit			GT15-J71GP23-SX	Fig. 11
CC-Link communication unit	Intelligent device station unit		GT15-J61BT13	Fig. 12
Ethernet communication unit			GT15-J71E71-100	Fig. 13

●Optional units

Product name	Model name	External dimensions
Printer unit	GT15-PRN	Fig. 14
Multimedia unit	GT16M-MMR	Fig. 15
Video input unit	GT16M-V4	Fig. 16
	GT15V-75V4	Fig. 17
RGB input unit	GT16M-R2	Fig. 16
	GT15V-75R1	Fig. 17
Video/RGB input unit	GT16M-V4R1	Fig. 16
	GT15V-75V4R1	Fig. 17
RGB output unit	GT16M-ROUT	Fig. 18
	GT15V-75ROUT	Fig. 18
CF card unit	GT15-CFCD	Fig. 19
CF card extension unit	GT15-CFEX-C08SET	Fig. 20
Audio output unit	GT15-SOUT	Fig. 21
External input/output unit	GT15-DIOR	Fig. 22
	GT15-DIO	Fig. 22
Handy GOT connector conversion box	GT11H-CNB-37S	Fig. 23

(Unit: mm)

(Unit: mm)



✻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
1mm smaller when a CF card unit is mounted.

●**For GT16**

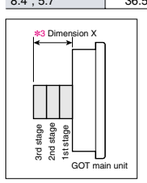
Units other than CC-Link IE controller network communication unit and multimedia unit			
	1st	2nd	3rd
15"	19.5	41	62.5
12.1"	18	39.5	61.5

CC-Link IE controller network communication unit and multimedia unit			
	1st	2nd	3rd
15"	33.5	55	76.5
12.1"	32	53	75

●**For GT15**

Units other than CC-Link IE controller network communication unit			
	1st	2nd	3rd
15", 10.4"	21	42.5	64.5
12.1"	18	39.5	61.5
8.4", 5.7"	23	44.5	66.5

CC-Link IE controller network communication unit			
	1st	2nd	3rd
15", 10.4"	34.5	56	78
12.1"	31.5	53	75
8.4", 5.7"	36.5	58	80



✻4 : Dimension A for each communication unit

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

✻5 : Dimension X when GOT is installed

●**For GT16**

15"	6.5
12.1"	5

●**For GT15**

15", 10.4"	8
12.1"	5
8.4", 5.7"	10

Notes for use

Backward compatibility

Project data

■GT Designer→GT Designer2 compatibility ✻

Project data created in GT Designer can be used in GT Designer2.

■GOT900 series→GOT1000 series compatibility ✻

● Using data from the GOT-A900 series

The GOT900 series project data can be used on the GOT1000 series.

● Using data from the GOT-F900 series

The GOT-F900 series project data can be used on the GOT1000 series.
For details, see "Project Data Conversion Summary (JY997D17761)."

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

Cables

- 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 cut dimensions

■GOT900 series→GOT1000 series compatibility

- The A985GOT(-V) and GT1585, A975/970GOT(-B) and GT157□, and F940GOT and GT155□/GT115□ have the same panel cut 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.

Selection of optional units and devices

Using the optional functions listed in the table below may require optional devices or units as shown. Note that the required optional units and devices may vary depending on the GOT main unit. The functions not listed in the table below may also require a CF card depending on the application. For details, see "Function list" (page 82) and "GT Designer2 Version2 Screen Design Manual." An optional function board or a CF card may be necessary depending on the function version and hardware version of the GOT main unit or available space of the user area.
For details, see "CF card & optional function board selection <GT16/GT15/GT11>" (page 78).

Function		Required optional units and devices			
		GT16	GT15	GT11	GT10
Memory extension		CF card	Optional function board: GT15-QFNB□M or GT15-MESB48M CF card	None	None
Multi-channel function		Not necessary	Optional function board: GT15-QFNB(□M) or GT15-MESB48M	None	None
Multimedia function		Multimedia unit: GT16M-MMR CF card for multimedia	None	None	None
Video/RGB function	Video input	Video input unit: GT16M-V4 or, Video/RGB input unit: GT16M-V4R1	Video input unit: GT15V-75V4 or, Video/RGB input unit: GT15V-75V4R1	None	None
	RGB input	RGB input unit: GT16M-R2 or, Video/RGB input unit: GT16M-V4R1	RGB input unit: GT15V-75R1 or, Video/RGB input unit: GT15V-75V4R1	None	None
	RGB output	RGB output unit: GT16M-ROUT	RGB output unit: GT15V-ROUT	None	None
CF card unit/CF card extension unit		CF card unit: GT15-CFCD or, CF card extension unit: GT15-CFEX-C08SET	CF card unit: GT15-CFCD or, CF card extension unit: GT15-CFEX-C08SET	None	None
Sound output function		Sound output unit: GT15-SOUT	Sound output unit: GT15-SOUT	None	None
Remote personal computer operation function		RGB input unit: GT16M-R2 or, Video/RGB input unit: GT16M-V4R1	RGB input unit: GT15V-75R1 or, Video/RGB input unit: GT15V-75V4R1	None	None
External input/output function, operation panel function		External input/output unit: GT15-DIO or GT15-DIOR	External input/output unit: GT15-DIO or GT15-DIOR	None	None
Gateway function		Not necessary	Ethernet communication unit: GT15-J71E71-100	None	None
MES interface function		Optional function board: GT16-MESB	Ethernet communication unit: GT15-J71E71-100 Optional function board: GT15-MESB48M	None	None
Document display function		CF card	Optional function board: GT15-QFNB(□M) or GT15-MESB48M CF card	None	None
Operation log function		CF card	CF card	None	None
Backup/restoration function		USB memory or CF card	CF card	None	None
Maintenance time notification function		Not necessary (equipped with battery as standard feature)	Battery: GT15-BAT	None	None
CNC data input/output function		USB memory or CF card	CF card	None	None
Ladder monitor function (when using Q/QnA ladder monitor function)		Not necessary	Optional function board: GT15-QFNB(□M) or GT15-MESB48M	None	None
SFC monitor function		CF card	Optional function board: GT15-QFNB□M or GT15-MESB48M CF card	None	None
Report function		Printer unit: GT15-PRN CF card	Printer unit: GT15-PRN CF card	None	None
Hard copy function	Saving files on CF card	CF card	CF card	None	None
	Printing by printer	Printer unit: GT15-PRN	Printer unit: GT15-PRN	None	None

CF card & optional function board selection <GT16/GT15/GT11>

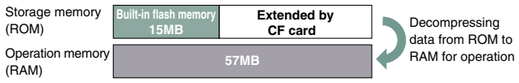
When using the GT16

When using optional functions & extended functions

When using the MES interface function, install the optional function board GT16-MESB.
No optional boards are necessary when using other functions.
Some functions, however, may require a CF card due to OS installation.
See below for details.

Storage memory (ROM) and operation memory (RAM)

The GOT operates while decompressing the OS and project data, which is stored in the storage memory (ROM), on the operation memory (RAM). Since the GT16 compresses some data before storing it on the storage memory (ROM), the data size becomes larger when decompressed on the operation memory (RAM).
The GT16 has a 15MB built-in flash memory for the storage memory (ROM) as a standard feature.
The CF card expands the memory if the OS and project data exceeds 15MB.
The GT16 has a 57MB operation memory (RAM) as a standard feature. The operation memory is not extendable.
The built-in flash memory is for "drive C". The CF card is for "drive A (standard)" or "drive B (extension)."

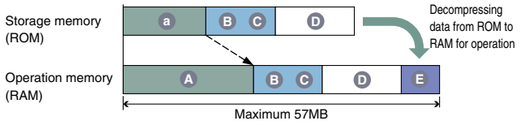


Types and capacities of data and CF card selection

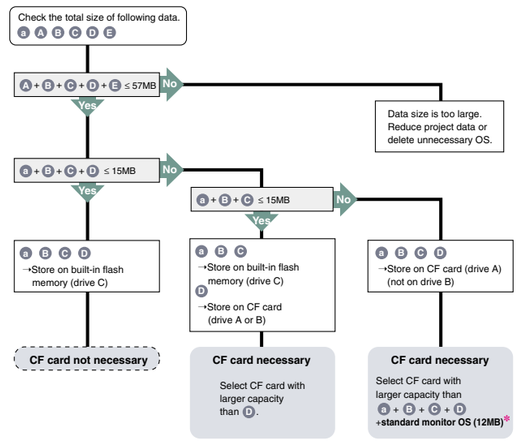
The data types and capacities are as shown in the table below.

Data type	Data capacity
(a) Extended function OS and optional function OS stored in ROM	Capacity of "GT16(ROM)" in【Table A】on page 79
(A) Extended function OS and optional function OS decompressed on RAM	Capacity of "GT16(RAM)" in【Table A】on page 79
(B) Communication driver	Check with【Table B】on page 79.
(C) Special data	Check with a screen design software.
(D) Project data	Check with a screen design software.
(E) Buffering area	Check with a screen design software.

As for the extended function OS and optional function OS, when decompressing the compressed data (a) in the storage memory (ROM) on the operation memory (RAM), the data size becomes larger as shown in (A).
The buffering area (E) is an area for storing resource data such as logging and extension alarms. It uses the operation memory (RAM). The data size differs depending on the setting. When the screen design software designates file saving, the accumulated resource data is stored in the designated storage (drive A or B). (The storage memory (ROM) is not used.)
If the size of data decompressed on the operation memory (RAM) exceeds 57MB, it is necessary to reduce, for instance, the project data size or delete unnecessary OS.



Necessity and capacity of the CF card depend on the data size.
Determine the necessity and capacity of the CF card according to the following flow chart.



*: When storing the extended function OS and optional function OS in the CF card (drive A), the standard monitor OS (standard monitor OS, standard font, etc.) needs to be stored in the CF card (drive A).

When using the GT15

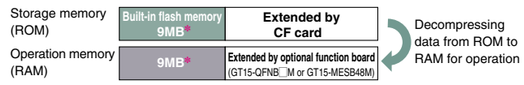
When using optional functions & extended functions

When using the following function, install the optional function board GT15-MESB48M.
• MES interface function
When using the following function, install the optional function board GT15-QFNB□M or GT15-MESB48M.
• SFC monitor function
When using the following function, install the optional function board GT15-QFNB(□M) or GT15-MESB48M.
• Multi-channel function • Document display function
• MELSEC-Q/QnA ladder monitor function
The following GOT requires no optional function boards when using optional functions other than above.
• GT15: functional version D or later
To activate the built-in optional function board in the GOT, it is necessary to install the standard monitor OS on the GOT using the GT Designer Version 2.55H or later.
Some functions, however, require an optional function board with expansion memory (GT15-QFNB□M or GT15-MESB48M) and a CF card.
See below for details.

Storage memory (ROM) and operation memory (RAM)

The GOT operates while decompressing the OS and project data, which is stored in the storage memory (ROM), on the operation memory (RAM). The GT15 has a 9MB* memory for the storage memory (ROM) and the operation memory (RAM) as a standard feature.
When the OS or the project data exceeds 9MB, use a CF card and an optional function board with expansion memory (GT15-QFNB□M or GT15-MESB48M) to increase the memory.
The built-in flash memory is for "drive C". The CF card is for "drive A (standard)" or "drive B (extension)."

*: Differs depending on the GOT main unit model: GT15□□-□TB□: 9MB, GT15□□-VNB□: 5MB

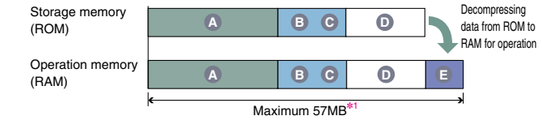


Types and capacities of data and CF card selection

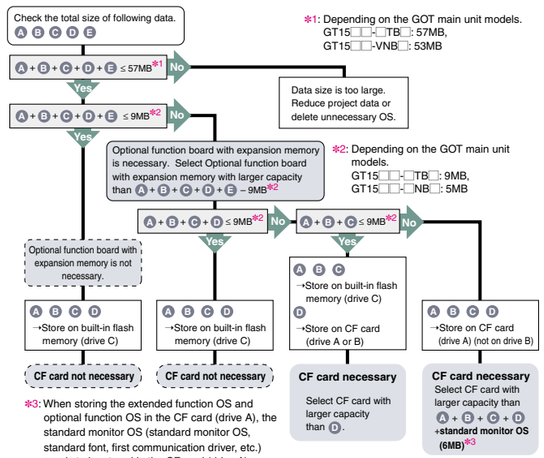
The data types and capacities are as shown in the table below.

Data type	Data capacity
(A) Extended function OS, optional function OS	Capacity of "GT15" on【Table A】on page 79
(B) Second communication driver and onwards	150KB for each
(C) Special data	Check with a screen design software.
(D) Project data	Check with a screen design software.
(E) Buffering area	Check with a screen design software.

The buffering area (E) is an area for storing resource data such as logging and extension alarms. It uses the operation memory (RAM). The data size differs depending on the setting. When the screen design software designates file saving, the accumulated resource data is stored in the designated storage (drive A or B). (The storage memory (ROM) is not used.)
If the size of data decompressed on the operation memory (RAM) exceeds 57MB*1, it is necessary to reduce, for instance, the project data size or delete unnecessary OS.



Necessity and capacity of the optional function board with expansion memory and the CF card depend on the data size. Determine the necessity and capacity of the optional function board with expansion memory and the CF card according to the following flow chart.



*1: Depending on the GOT main unit models.
GT15□□-□TB□: 57MB,
GT15□□-VNB□: 53MB

*2: Depending on the GOT main unit models.
GT15□□-□TB□: 9MB,
GT15□□-□NB□: 5MB

*3: When storing the extended function OS and optional function OS in the CF card (drive A), the standard monitor OS (standard monitor OS, standard font, first communication driver, etc.) needs to be stored in the CF card (drive A).

When using the GT11

When using optional functions

Since the following GOT models have a built-in optional function board (GT11-50FNB), it is unnecessary to mount an optional function board to use optional functions shown in【Table A】.
• GT115□-Q□BDQ • GT115□-Q□BDA • GT1155-QTBD • GT115□HS-Q□BD: Version B or later • GT115□-Q□BD: Version C or later

【Table A】Capacity of extended functional OS and optional function OS

Function			User area size to be used (KB) GT16 RAM	GT16 ROM	GT15	GT11
Extended functions	Barcode		84	84	84	*1
	RFID		166	166	166	*1
	System monitor		746	746	746	*1
	Report		235	150	235	None
	Printer		1104	522	1104	None
	Operation log (device name conversion library)		800	400	800	None
	Stroke font	Stroke font support function	400	400	400	None
		Stroke basic font (Japanese)	2160	2160	2160	None
		Stroke basic font (Japanese) (with Hangul)	3175	3175	3175	None
		Stroke basic font (Chinese: Simplified)	1474	1474	1474	None
		Stroke basic font (Chinese: Simplified) (with Hangul)	2016	2016	2016	None
	Video display / RGB display	Video/RGB	474	292	512	None
	Multimedia		1074	292	–	None
	Remote personal computer operation	Video/RGB	474	292	512	None
		Remote personal computer operation	84	50	84	None
	Backup/restoration		766	420	820	None
	Operator authentication		730	460	784	None
	Audio output		200	100	200	None
	External I/O, operation panel		100	70	100	None
	CNC data input/output	CNC data input/output	383	210	437	None
	GOT platform library		200	77	100	None
	Device data transfer		100	50	100	None
Optional functions	Maintenance time notification		*2	*2	*2	None
	Multi-channel		*2	*2	*2	None
	Chinese region	Standard font (Chinese: Simplified)	1280	1280	1280	None
		Standard font (Chinese: Traditional)	1920	1920	1920	None
		Standard font (Japanese)	1280	1280	1280	None
		Stroke font (Japanese)	1037	1037	1037	None
		Stroke font (Chinese: Simplified)	1248	1248	1248	None
		Stroke font (Chinese: Traditional)	1680	1680	1680	None
	Operation log		1221	384	1218	None
	Document display		3072	150	2048	None
	Kana-Kanji conversion		None	None	1223	None
	Kana-Kanji conversion (enhanced version)		1274	242	1274	None
	Historical trend graph*3		*2	*2	*2	None
	Logging*4		710	380	740	None
	Recipe		100	70	100	*1
	Advanced recipe		1187	310	1241	None
	Object script*4		360	180	360	None
	Ladder monitor	MELSEC-A ladder monitor	674	342	523	None
		MELSEC-FX ladder monitor	674	342	592	None
		MELSEC-Q/QnA ladder monitor	4170	590	1082	None

Function			User area size to be used (KB) GT16 RAM	GT16 ROM	GT15	GT11
Optional functions	A list editor	MELSEC-A list editor	1024	542	1058	*1
	FX list editor	MELSEC-FX list editor	1024	542	1058	*1
	Intelligent unit monitor		770	390	384	None
	Network monitor		370	210	324	None
	Q motion monitor		770	390	607	None
	Servo amplifier monitor		770	390	524	None
	CNC monitor		770	390	588	None
	SFC monitor	GOT platform library	200	77	100 *5	None
		SFC monitor	1940	608	1373*5	None
		GOT function extension library	19381	4728	4728*5	None
	Gateway	Gateway (server, client)	100	50	100	None
		Gateway (mail)	100	50	100	None
		Gateway (FTP)	84	50	64	None
	MES interface		13461	1598	3196*6	None

*1: Requires installation of the optional function OS and extended function OS, but does not use the user area.
*2: Installation of the optional function OS is not required.
*3: It is necessary to specify the logging function and install the optional function OS (logging) in advance.
*4: Necessary when using the GOT project data that is automatically created by the PX Developer (Ver. 1.15 or later). For details, see "PX Developer Version 1 Operating Manual (GOT Screen Generator)(SH-080772ENG)."
*5: When using the SFC monitor, an empty space of 6201KB or more in the user area of the designated drive is necessary to install the extended function OS and optional function OS. (When using a GOT with 5MB built-in flash memory, the boot source of the OS needs to be set to "A: standard CF card.") The user area of the memory has to provide 8192KB for operating the GOT function extension library (optional function OS). (Using the SFC monitor requires a total memory capacity of 14393KB.) Due to the above, the following settings are necessary depending on the GOT to be used.

GOT	Necessary setting
GT157□-VN, GT1562-VN	· Set boot source of OS to "A: standard CF card." · Memory extension (install optional function board with expansion memory.)
Other than above	· Memory extension (install optional function board with expansion memory.)

For setting the boot source of the OS, see "GT Designer2 Version□, Basic Operation/Data Transfer Manual (8.9 Data transfer by memory card.)"
*6: The operation of the MES interface function uses 8218KB of the extended memory (GT15-MESB48M(48MB)) of GT15's operation memory.

【Table B】Capacity of GT16 communication driver

Units connected	Communication driver name	Capacity (KB)
Mitsubishi PLC, motion controller, robot controller, CNC	Bus connection Q	180
	A/QnA/QCPU, QJ71C24	180
	MELSEC-FX	180
	MELSECNET/H	200
	CC-Link IE controller network	200
Third party PLC, motion controller	JTEKT Corporation TOYOPUC-PC	160
	Ethernet (Yaskawa Electric Corporation)	160
Microcomputer	Microcomputer connection	230
Communication drivers other than above		150

To use the multi-channel function <GT16/GT15>

The multi-channel function is designed to connect and monitor multiple FA devices by mounting multiple communication units on a single GOT unit or by using the standard interface.

Acceptable combinations

The following connection combinations can be used for the multi-channel function.

When using GT16:
①Bus connection, or network connection *1 + serial connection *2
②Bus connection, or network connection *1 + Ethernet connection *3
③Ethernet connection *3 + serial connection *2
④Bus connection, or network connection *1 + Ethernet connection *3 + serial connection *2
⑤Serial connection *2
⑥Ethernet connection *3

When using GT15:
①Bus connection, network connection *1, or Ethernet connection *3 + serial connection *2
②Serial connection *2

*1: The network connections include the following connection configurations.
•MELSECNET/H connection •MELSECNET/10 connection •CC-Link IE connection •CC-Link connection (ID)
*2: The serial connections include the following connection configurations.
•CPU direct connection •Computer link connection •CC-Link connection (via G4)
•Microcomputer connection •Connection with third party PLCs •Temperature controller connection
•Inverter connection •Servo amplifier connection •CNC connection (CPU direct connection)
*3: The Ethernet connections include the following connection configurations.
•Ethernet connection •MODBUS®/TCP connection

Maximum number of connectable channels, mountable units and mounting stages

(1) Number of connectable channels
The number of connectable channels varies depending on the GOT model. See the following table.
(2) Number of mountable units and mounting stages
When the multi-channel function is used, add interfaces on the GOT side by 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. See the following data.

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

Optional 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.

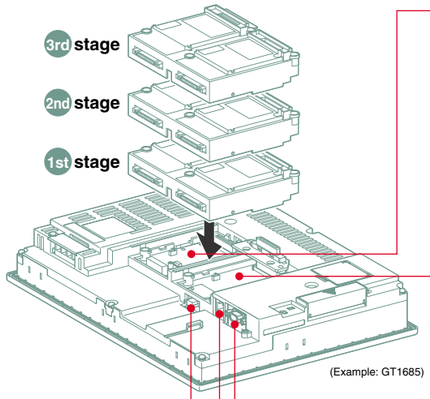
Communication driver

A communication driver must be installed for each of the connection configurations.
For GT16, the communication driver is installed in the user area.
For GT15, communication drivers for the second and subsequent channels will be installed in the user area.

		GT1695/GT1685	GT1595/GT1585GT157□/GT156□	GT155□	Description
(1)	Number of connectable channels	Up to 4 channels		Up to 2 channels	For GT16: The number of communication ports (communication units and interfaces) for use for communication on GOT. • Only one channel per one GOT can be connected in bus connection and network connection. • Ethernet connection is available up to four channels. • When the Ethernet interface built in the GOT is used for functions other than communication with the connected device *4, the interface is not included in the number of connected channels. • When the RS-232 standard interface is used for connection *5 with a peripheral device, the interface is not included in the number of connected channels. ☞ See "Calculation of current consumed by units <GT16/GT15>" (page 80).
					For GT15: The number of communication ports (communication units and interfaces) for use for communication on GOT. • 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 device *4, the unit is not included in the number of connected channels. • When the RS-232 standard interface is used for connection *5 with a peripheral device, the interface is not included in the number of connected channels. ☞ See "Calculation of current consumed by units <GT16/GT15>" (page 80).
	Number of mountable units	Up to 5 units		Up to 3 units	The number of units that can be mounted on the extension unit interfaces 1 and 2 of GOT. • More than one serial communication unit *6 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. ☞ See "Calculation of current consumed by units < GT16/GT15>" (page 80).
(2)	Number of mounting stages	Up to 3 stages (2 slots)		Up to 3 stages (1 slot)	The number of mounting stages that units can be stacked on the extension unit interfaces 1 and 2 of GOT. • Units that occupy two slots *7 *8 must be mounted on the first stage. • When any units in *8 is used, mount the unit on the first stage, then mount other units on the second or subsequent stages. • Units in *9 cannot be stacked on other units. Mount any of the units on the first stage. ☞ See "External dimensions" (page 76) and "Mounting units on the GOT side interface <GT16/GT15>" (page 80).

*4: Ethernet download function, gateway function and MES interface function
*5: Barcode function, RFID function, remote personal computer operation function, FA transparent function, OS install and project data download
*6: GT15-RS2-9P, GT15-RS4-9S and GT15-RS4-TE
*7: GT15-QBUS2, GT15-ABUS2, GT15-J71LP23-25, GT15-J71BR13, GT15-J61BT13, GT15-J71GP23-SX
*8: GT16M-V4, GT15V-75V4, GT16M-R2, GT15V-75R1, GT16M-V4R1, GT15V-75V4R1, GT16M-ROUT, GT15V-75ROUT, GT16M-MMR
*9: GT15-75QBUSL, GT15-75QBUS2L, GT15-75ABUSL, GT15-75ABUS2L, GT15-75J71LP23-Z, GT15-75J71BR13-Z, GT15-75J61BT13-Z

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



(Example: GT1685)

Extension unit interface 1

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.

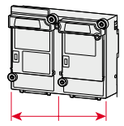
For GT16 (Only one of these units can be mounted on the GT16)
●GT16M-V4, GT16M-R2, GT16-V4R1, GT16-ROUT, GT16M-MMR

For GT15 (Only one of these units can be mounted on the GT1585V and GT1575V)
●GT15V-75V4, GT15V-75R1, GT15V-75V4R1, GT15V-75ROUT

The following units must not be stacked on other units. Mount any of them on the first stage.
●GT15-75QBUSL, GT15-75QBUS2L, GT15-75ABUSL, GT15-75ABUS2L
●GT15-75J71LP23-Z, GT15-75J71BR13-Z, GT15-75J61BT13-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 (△PULL) 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
GT1595	2.13
GT1585 (incl. GT1585V)	1.74
GT157□ (incl. GT1575V)	2.2
GT156□	2.2
GT155□	1.3

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

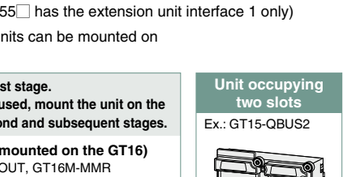
Unit model	Consumed current (A)
GT15-QBUS GT15-QBUS2 GT15-75QBUSL GT15-75QBUS2L	0.275※1
GT15-ABUS GT15-ABUS2 GT15-75ABUSL GT15-75ABUS2L	0.12
GT15-RS2-9P	0.29
GT15-RS4-9S	0.33
GT15-RS4-TE	0.3
GT15-RS2T4-9P	0.098
GT15-J71E71-100	0.224
GT15-J71GP23-SX	1.07
GT15-J71LP23-25	0.56
GT15-J71BR13	0.77
GT15-J61BT13	0.56

Unit model	Consumed current (A)
Barcode reader	※2
GT15-PRN	0.09
GT16M-V4	0.12 ※1
GT15V-75V4	0.2 ※1
GT16M-R2	0 ※1
GT15V-75R1	0.2 ※1
GT16M-V4R1	0.12 ※1
GT15V-75V4R1	0.2 ※1
GT16M-ROUT	0.11 ※1
GT15V-75ROUT	0.11
GT16M-MMR	0.27 ※1
GT15-CFCD	0.07
GT15-CFEX-C08SET	0.15
GT15-SOUT	0.08
GT15-DIO	0.1
GT15-DIOR	0.1
RFID controller	※2

※1 : This value is used for calculating the current consumption of multi-channel functions. For the specifications of each unit, see the manual supplied with each unit.
※2 : When using a barcode reader or a RFID controller to which the power is supplied from the standard interface, add the current to be used by the barcode reader and RFID controller at 5VDC. (Maximum less than 0.3A)

(3) Calculation example

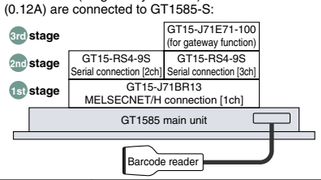
(a) When GT15-J71BR13, GT15-RS4-9S (3 units), GT15-J71E71-100 (for gateway function) and barcode reader (0.12A) are connected to GT1575-V:



Current supply capacity of GT (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.

(b) When GT15-J71BR13, GT15-RS4-9S (2 units), GT15-J71E71-100 (for gateway function) and barcode reader (0.12A) are connected to GT1585-S:



Current supply capacity of GT (A)	Total current to be consumed (A)
1.74	0.77+0.33+0.33+0.224+0.12=1.774

Not allowed to use because the current exceeds the current supply capacity of the GOT.

GT Designer2 (English version) operating environment

Item	Description	
Personal computer	PC/AT compatible machine on which Windows® operates	
OS	Microsoft® Windows®98 Operating System (English version)※8 Microsoft® Windows® Millennium Edition Operating System (English version)※8 Microsoft® WindowsNT® Workstation 4.0 Operating System Service Pack 3 or later (English version)※1※8 Microsoft® Windows® 2000 Professional Operating System Service Pack 4 or later (English version)※1※8	Microsoft® Windows® XP Professional Operating System Service Pack 2 or later (English version)※2※4※5※8 Microsoft® Windows® XP Home Edition Operating System Service Pack 2 or later (English version)※2※4※5※8 Microsoft® Windows Vista® Ultimate Operating System (English version)※3※4※5※8 Microsoft® Windows Vista® Enterprise Operating System (English version)※3※4※5※8 Microsoft® Windows Vista® Business Operating System (English version)※3※4※5※8 Microsoft® Windows Vista® Home Premium Operating System (English version)※3※4※5※8 Microsoft® Windows Vista® Home Basic Operating System (English version)※3※4※5※8
CPU	Pentium® 200MHz or higher	Microsoft® Windows® XP : Pentium Ⅱ® 300MHz or higher Microsoft® Windows Vista® : 800MHz or more (recommended: 1GHz or more)
Required memory	64MB or more	Microsoft® Windows® XP : 128MB or more Microsoft® Windows Vista® : 512MB or more (recommended: 1GB or more)
Free hard disk space	For installation: 1.1GB or more ※7 For operation: 100MB or more	
Disk drive	CD-ROM disk drive	
Display colors	High color (16 bits) or more	
Display※6	Resolution 800 × 600 dots or more	
Other	Internet Explorer version 5.0 or later must be installed. Mouse, keyboard, printer and CD-ROM drive that can be used on the above OS	

※1 : To install GT Designer2, administrator authority is required.
※2 : To install and use GT Designer2, administrator authority is required.
※3 : To install GT Designer2, administrator authority is required.
To use GT Designer2, an account higher than the standard user is required.
To use GT Designer2 in cooperation with another application, if an administrator account is used to run the application then use an administrator account to run GT Designer2.
※4 : The following functions are not supported.
• Compatible Mode • Fast User Switching • Desktop Theme (Font) Change • Remote Desktop
※5 : Only the 32-bit OS is applicable.
※6 : To use the MES interface function, the display must have a resolution of 1024 × 768 dots or more.
※7 : 800MB or more for Windows® 98, Windows® Millennium Edition and WindowsNT®.
※8 : The following language versions are also applicable: Chinese (Simplified/Traditional), Korean, German.

GT Simulator2 (English version) operating environment

Item	Description	
Personal computer	PC/AT compatible machine on which Windows® operates	
OS	Microsoft® Windows®98 Operating System (English version) Microsoft® Windows® Millennium Edition Operating System (English version) Microsoft® WindowsNT® Workstation 4.0 Operating System Service Pack 3 or later (English version)※2 Microsoft® Windows® 2000 Professional Operating System Service Pack 4 or later (English version)※2	Microsoft® Windows® XP Professional Operating System Service Pack 2 or later (English version)※3※4※7 Microsoft® Windows® XP Home Edition Operating System Service Pack 2 or later (English version)※3※4※7 Microsoft® Windows Vista® Ultimate Operating System (English version)※3※4※7 Microsoft® Windows Vista® Enterprise Operating System (English version)※3※4※7 Microsoft® Windows Vista® Business Operating System (English version)※3※4※7 Microsoft® Windows Vista® Home Premium Operating System (English version)※3※4※7 Microsoft® Windows Vista® Home Basic Operating System (English version)※3※4※7
CPU	Pentium® 200MHz or higher	Microsoft® Windows® XP : Pentium Ⅱ® 300MHz or higher Microsoft® Windows Vista® : 800MHz or more (recommended: 1GHz or more)
Required memory	64MB or more	Microsoft® Windows® XP : 128MB or more Microsoft® Windows Vista® : 512MB or more (recommended: 1GB or more)
Free hard disk space※1	For installation (product only) : 700MB or more For operation (product + manual): 950MB or more For operation : 200MB or more	
Disk drive	CD-ROM disk drive	
Display colors	For GT16 simulator: 65,536 colors For GT15 simulator: 65,536 colors For GT11 simulator: 256 colors	
Display	Resolution 800 × 600 dots or more (to use full-screen display function: resolution 1024 × 768 dots or more)	
Software: For creation/editing of project data	GT Designer2※5	
Software: For use of GX Simulator	GX Simulator version 5 or later※6 The GX Simulator software versions for simulating PLC CPUs are as follows.	

PLC CPU to be simulated	Software version
QCPU (A mode), ACPU, motion controller CPU (A series)	Version 5A or later
QCPU (Q mode) (excl. Q00J, Q00 and Q01CPU), QnACPU, FXCPU	Version 5E or later
Q00JCPU, Q00CPU, Q01CPU	Version 6.00A or later
Q02PHCPU, Q06PHCPU	Version 7.20W or later
Q12PHCPU, Q25PHCPU	Version 6.10L or later
Q12PRHCPU, Q25PRHCPU	Version 6.20W or later
FX3UC series	Version 7.08J or later
FX3U series	

※1 : To use GT Designer2, GX Developer and GX Simulator, additional free space is required.
※2 : To install GT Simulator2, administrator authority is required.
※3 : To install and use GT Simulator2, administrator authority is required.
※4 : The following functions are not supported.
• Compatible Mode • Fast User Switching • Desktop Theme (Font) Change • Remote Desktop
※5 : Use GT Designer2 in the GT Works2 containing GT Simulator2.
※6 : Use GT Simulator2, GX Developer and GX Simulator of the same language version.
※7 : Only the 32-bit OS is applicable.

Function list

GT16 GT15 GT SoftGOT

Category	Function※1		Optional function board ※2	Extended/optional function OS installation ※2	Other necessary devices ※3	Details page	GT16 GT1695M-XTB□ XGA 15"	GT16 GT1685M-STB□ SVGA 12.1"	GT15 GT1595-XTB□ XGA 15"	GT15 GT1585(V)-STB□ SVGA 12.1"	GT15 GT1575(V)-STB□ SVGA 10.4"	GT15 GT1575-VTB□ VGA 10.4"	GT15 GT157□-VNB□ VGA 10.4"	GT15 GT1565-VTB□ VGA 8.4"	GT15 GT1562-VNB□ VGA 8.4"	GT15 GT155□-□BD VGA/QVGA 5.7"	GT SoftGOT 1000 Version2 ※4
Connection configuration	Bus connection						●	●	●	●	●	●	●	●	●	●	—
	CPU direct connection						●	●	●	●	●	●	●	●	●	●	●
	Computer link connection						●	●	●	●	●	●	●	●	●	●	●
	MELSECNET/H connection						●	●	●	●	●	●	●	●	●	●	●
	MELSECNET/10 connection					P.62~	●	●	●	●	●	●	●	●	●	●	●
	CC-Link IE controller network connection						●	●	●	●	●	●	●	●	●	●	●
	CC-Link connection (ID station/via G4)						●	●	●	●	●	●	●	●	●	●	—
	Ethernet connection						●	●	●	●	●	●	●	●	●	●	●
	Third party PLC connection				※11		●	●	●	●	●	●	●	●	●	●	●
	Microcomputer connection						●	●	●	●	●	●	●	●	●	●	—
	MODBUS®/TCP connection						●	●	●	●	●	●	●	●	●	●	—
	Temperature controller connection						●	●	●	●	●	●	●	●	●	●	—
	Inverter connection						●	●	●	●	●	●	●	●	●	●	—
	Servo amplifier connection					P.28, 62~	●	●	●	●	●	●	●	●	●	●	—
	CNC connection (C6/C64)	CPU direct connection					●	●	●	●	●	●	●	●	●	●	●
		MELSECNET/10 connection					●	●	●	●	●	●	●	●	●	●	—
		CC-Link (ID station) connection					●	●	●	●	●	●	●	●	●	●	—
		Ethernet connection					●	●	●	●	●	●	●	●	●	●	●
	Robot controller connection (CRnD-700)						●	●	●	●	●	●	●	●	●	●	●
Hardware specifications — Memory	Standard memory capacity						15MB	15MB	9MB	9MB	9MB	9MB	5MB	9MB	5MB	9MB	57MB
	Total memory capacity when using optional memory (standard + optional)		Required※2 (GT15 only)		CF card	P.26, 67~	Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	—
Hardware specifications — Display colors	6,5536 colors						●	●	●	●	●	●	—	●	—	GT1555-□TBD only	●
	4,096 colors						—	—	—	—	—	—	—	—	—	GT1555-QSBD only	—
	256 colors						—	—	—	—	—	—	GT1575-VNB□ only	—	—	—	—
	16 colors						—	—	—	—	—	—	GT1572-VNB□ only	—	●	—	—
	Monochrome (black/white) 16 gray scales						—	—	—	—	—	—	—	—	—	GT1550-QLBD only	—
	Monochrome (black/white) 2 colors						—	—	—	—	—	—	—	—	—	—	—
	Monochrome (blue/white) 16 gray scales						—	—	—	—	—	—	—	—	—	—	—
Hardware specifications — Resolution	1600 × 1200 dots (UXGA)						—	—	—	—	—	—	—	—	—	—	●
	1280 × 1024 dots (SXGA)						—	—	—	—	—	—	—	—	—	—	●
	1024 × 768 dots (XGA)						●	—	●	—	—	—	—	—	—	—	●
	800 × 600 dots (SVGA)						—	●	—	●	●	—	—	—	—	—	●
	640 × 480 dots (VGA)					P.67~	—	—	—	—	—	●	●	●	●	GT1555-VTBD only	●
	320 × 240 dots (QVGA)						—	—	—	—	—	—	—	—	—	●	—
	288 × 96 dots						—	—	—	—	—	—	—	—	—	—	—
	160 × 64 dots						—	—	—	—	—	—	—	—	—	—	—
Hardware specifications — Built-in interface	RS-232 interface						●	●	●	●	●	●	●	●	●	●	—
	RS-422 interface						※5	※5	※5	※5	※5	※5	※5	※5	※5	—	—
	RS-422/232 interface						—	—	—	—	—	—	—	—	—	—	—
	RS-422/485 interface						●	●	—	—	—	—	—	—	—	—	—
	Bus interface						—	—	—	—	—	—	—	—	—	—	—
	Ethernet interface						●	●	—	—	—	—	—	—	—	—	—
	USB interface	USB host					●	●	—	—	—	—	—	—	—	—	—
		USB device					●	●	●	●	●	●	●	●	●	●	—
	CF card interface						●	●	●	●	●	●	●	●	●	●	—
	Optional function board interface						●	●	●	●	●	●	●	●	●	●	—
	Extension unit interface						● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 1ch	—
	Multimedia & Video/RGB interface						●	●	—	—	—	—	—	—	—	—	—
	Video/RGB interface						—	—	—	● GT1585V only	● GT1575V only	—	—	—	—	—	—
Hardware specifications — Other	Vertical display						—	—	—	—	—	—	—	—	—	—	—
	Clock function				(Battery)		●	●	●	●	●	●	●	●	●	●	●
	Buzzer output					P.67~	●	●	●	●	●	●	●	●	●	●	●
	Human sensor						●	●	●	●	—	—	—	—	—	—	—
	Printer		Required		Printer unit	P.28	●	●	●	●	●	●	●	●	●	●	●
	CF card unit (CF card extension unit)				CF card unit / CF card extension unit	P.31	●	●	●	●	●	●	●	●	●	●	—
	Sound output		Required		Sound output unit		●	●	●	●	●	●	●	●	●	●	●
	External input/output		Required		External input/output unit		●	●	●	●	●	●	●	●	●	●	—
	Video input / RGB input / RGB output		Required		Video/RGB unit	P.30	●	●	—	● GT1585V only	● GT1575V only	—	—	—	—	—	—
	Backlight OFF detection function						●	●	●	●	●	●	●	●	●	●	—
	Protective structure					P.67~	●	●	●	●	●	●	●	●	●	●	—
Main unit functions	Boot OS installation				CF card		●	●	●	●	●	●	●	●	●	●	—
	Start from CF card		Required※2 (GT15 only)		CF card	P.26	●	●	●	●	●	●	●	●	●	●	—
	OS installation				(CF card)		●	●	●	●	●	●	●	●	●	●	—
	Project data download/upload				(CF card/ USB memory <GT16 only>)		●	●	●	●	●	●	●	●	●	●	●
	Resource data upload						●	●	●	●	●	●	●	●	●	●	●
	FA transparent function					P.43	●	●	●	●	●	●	●	●	●	●	—
	Multi-channel function		Required※2 (GT15 only)			P.29	● Up to 4ch	● Up to 4ch	● Up to 4ch	● Up to 4ch	● Up to 4ch	● Up to 4ch	● Up to 4ch	● Up to 4ch	● Up to 4ch	● Up to 2ch	—
	Gateway function			Required	(CF card)	P.32	●	●	●	●	●	●	●	●	●	●	—
	MES interface function		Required※2	Required	(CF card)	P.33	●	●	●	●	●	●	●	●	●	●	—
Screen design — Specifications	Base screen						●	●	●	●	●	●	●	●	●	●	●
	Superimposed window display						●	●	●	●	●	●	●	●	●	●	●
	Overlap window display						●	●	●	●	●	●	●	●	●	●	●
	Dialog window display					P.42	●	●	●	●	●	●	●	●	●	●	●

GT11 GT10

Category	Function※1		Optional function board ※2	Extended/optional function OS installation ※2	Other necessary devices ※3	Details page	GT11 GT115□-Q□BD QVGA 5.7"	GT11 GT115□-Q□BD□ QVGA 5.7"	GT11 GT115□HS-Q□BD QVGA※4 5.7"	GT10※4 GT105□-Q□BD QVGA 5.7"	GT10※4 GT1030-LBD(W)(2) 4.5"	GT10※4 GT1020-LB□(W)(2) 3.7"
Connection configuration	Bus connection						—	●	—	—	—	—
	CPU direct connection						●	—	●	●	●	●
	Computer link connection						●	—	●	●	●	●
	MELSECNET/H connection						—	—	—	—	—	—
	MELSECNET/10 connection					P.62~	—	—	—	—	—	—
	CC-Link IE controller network connection						—	—	—	—	—	—
	CC-Link connection (ID station/via G4)						● Via G4 only	—	● Via G4 only	● Via G4 only	● Via G4 only	● Via G4 only
	Ethernet connection						—	—	—	—	—	—
	Third party PLC connection						●	—	●	●	●	●
	Microcomputer connection						●	—	●	●	●	●
	MODBUS®/TCP connection						—	—	—	—	—	—
	Temperature controller connection						●	—	●	—	—	—
	Inverter connection						●	—	●	●	●	●
	Servo amplifier connection					P.28, 62~	●	—	●	—	—	—
	CNC connection (C6/C64)	CPU direct connection					●	—	●	—	—	—
		MELSECNET/10 connection					—	—	—	—	—	—
		CC-Link (ID station) connection					—	—	—	—	—	—
		Ethernet connection					—	—	—	—	—	—
	Robot controller connection (CRnD-700)						—	—	—	—	—	—
Hardware specifications — Memory	Standard memory capacity						3MB	3MB	3MB	3MB	1.5MB	512KB
	Total memory capacity when using optional memory (standard + optional)					P.26, 67~	—	—	—	—	—	—
Hardware specifications — Display colors	65,536 colors						—	—	—	—	—	—
	4,096 colors						—	—	—	—	—	—
	256 colors						● GT1155-Q□BD only	● GT1155-Q□BDQ/A only	● GT1155-HS-QSBD only	● GT1055-QSBD only	—	—
	16 colors						—	—	—	—	—	—
	Monochrome (black/white) 16 gray scales						● GT1150-QLBD only	● GT1150-QLBDQ/A only	● GT1150-HS-QLBD only	—	—	—
	Monochrome (black/white) 2 colors						—	—	—	—	●	●
	Monochrome (blue/white) 16 gray scales						—	—	—	● GT1050-QBBD only	—	—
Hardware specifications — Resolution	1600 × 1200 dots (UXGA)						—	—	—	—	—	—
	1280 × 1024 dots (SXGA)						—	—	—	—	—	—
	1024 × 768 dots (XGA)						—	—	—	—	—	—
	800 × 600 dots (SVGA)						—	—	—	—	—	—
	640 × 480 dots (VGA)					P.67~	—	—	—	—	—	—
	320 × 240 dots (QVGA)						●	●	●	●	—	—
	288 × 96 dots						—	—	—	—	●	—
	160 × 64 dots						—	—	—	—	—	●
Hardware specifications — Built-in interface	RS-232 interface						●	●	●	●	●	●
	RS-422 interface						●	—	—	●	● GT1030-LBD(W) only	● GT1020-LBD(W) only
	RS-422/232 interface						—	—	●	—	—	—
	RS-422/485 interface						—	—	—	—	—	—
	Bus interface						—	●	—	—	—	—
	Ethernet interface						—	—	—	—	—	—
	USB interface	USB host					—	—	—	—	—	—
		USB device					●	●	●	●	—	—
	CF card interface						●	●	●	—	—	—
	Optional function board interface						●	—	●	—	—	—
	Extension unit interface						—	—	—	—	—	—
	Multimedia & Video/RGB interface						—	—	—	—	—	—
	Video/RGB interface						—	—	—	—	—	—
Hardware specifications — Other	Vertical display						●	●	—	●	●	●
	Clock function						●	●	●	●	●	※9
	Buzzer output					P.67~	●	●	●	●	●	●
	Human sensor						—	—	—	—	—	—
	Printer					P.28	—	—	—	—	—	—
	CF card unit (CF card extension unit)					P.31	—	—	—	—	—	—
	Sound output						—	—	—	—	—	—
	External input/output						—	—	—	—	—	—
	Video input / RGB input / RGB output					P.30	—	—	—	—	—	—
	Backlight OFF detection function						●	●	●	●	—	—
	Protective structure					P.67~	●	●	●	●	●	●
Main unit functions	Boot OS installation				(CF card)		●	●	●	—	—	—
	Start from CF card					P.26	—	—	—	—	—	—
	OS installation				(CF card)		●	●	●	●	●	●
	Project data download/upload				(CF card)		●	●	●	●	●	●
	Resource data upload				(CF card)		●	●	●	●	●	●
	FA transparent function					P.43	●	●	●※6	●	●	●
	Multi-channel function					P.29	—	—	—	—	—	—
	Gateway function					P.32	—	—	—	—	—	—
	MES interface function					P.33	—	—	—	—	—	—
Screen design — Specifications	Base screen						●	●	●	●	●	●
	Superimposed window display						●	●	●	●	●	●
	Overlap window display						●	●	●	●	●	●
	Dialog window display					P.42	●	●	●	—	—	—

※1 : The function details, such as the number of settings and the data storage destination, vary depending on the model.
※2 : An optional function board may be required depending on the models, function version or hardware version of the GOT main unit. The optional function board to be used varies depending on the required function. For details, see "Notes for use" (page 77).
For the GT10 and GT SoftGOT1000, it is unnecessary to install an optional function board or the extended/optional function OS.
※3 : Necessary options or optional units other than the optional function board are shown. Parenthesized devices will be required depending on conditions of use. For details, see "Notes for use, Selection of optional units and devices" (page 77).
※4 : For details, see "GT10" (page 52), "Handy GOT" (page 57) and "GT softGOT1000" (page 58).
※5 : The RS-232 interface can be used as an RS-422 interface by connecting an RS-422 conversion unit.
※6 : Structural restrictions are applied.
※7 : Only user alarms can be used.
※8 : To use the historical trend graph, it is necessary to specify the logging function in advance. In addition, it is necessary to install the optional function OS (logging).
※9 : Read from the PLC clock.
※10 : Only Japanese fonts (supporting European languages) can be used.
※11 : Different connection configurations may require different communication units. For details, see the GOT1000 Series Handbook and the GOT1000 Series Connection Manual.

Function list

GT16 GT15 GT SoftGOT

Category		Function※1		Optional function board※2	Extended/optional function OS installation※2	Other necessary devices※3	Details page	GT16 GT1695M-XTB□ XGA 15"	GT16 GT1685M-STB□ SVGA 12.1"	GT15 GT1595-XTB□ XGA 15"	GT15 GT1585(V)-STB□ SVGA 12.1"	GT15 GT1575(V)-STB□ SVGA 10.4"	GT15 GT1575-VTB□ VGA 10.4"	GT15 GT157□-VNB□ VGA 10.4"	GT15 GT1565-VTB□ VGA 8.4"	GT15 GT1562-VNB□ VGA 8.4"	GT15 GT155□-□□BD VGA/QVGA 5.7"	GT SoftGOT 1000 Version2※4
Specifications	Supported image data format	BMP image display						●	●	●	●	●	●	●	●	●	●	●
		JPEG image display						●	●	●	●	●	●	●	●	●	●	●
		DXF data						●	●	●	●	●	●	●	●	●	●	●
		IGES data						●	●	●	●	●	●	●	●	●	●	●
	Standard fonts (basic)	Japanese, Japanese (supporting European languages), Chinese (Simplified), Chinese (Traditional, supporting European languages)						●	●	●	●	●	●	●	●	●	●	●
	Standard fonts (optional)	Chinese (Simplified)			Required		P.42	●	●	●	●	●	●	●	●	●	●	●
		Chinese (Traditional)			Required			●	●	●	●	●	●	●	●	●	●	●
		Japanese			Required			●	●	●	●	●	●	●	●	●	●	●
	High-quality font							●	●	●	●	●	●	●	●	●	●	●
	TrueType font							●	●	●	●	●	●	●	●	●	●	●
	TrueType font (7 segments)						P.36	●	●	●	●	●	●	●	●	●	●	●
	Windows® font							●	●	●	●	●	●	●	●	●	●	●
	Stroke basic font (extended)				Required			●	●	●	●	●	●	●	●	●	●	●
	Stroke font (optional)				Required			●	●	●	●	●	●	●	●	●	●	●
Common settings	Parts (object + figure) layer function						P.26	●	●	●	●	●	●	●	●	●	●	●
	Screen switching							●	●	●	●	●	●	●	●	●	●	●
	Station No. switching							●	●	●	●	●	●	●	●	●	●	●
	Multilingual support function						P.25	●	●	●	●	●	●	●	●	●	●	●
	Password							●	●	●	●	●	●	●	●	●	●	●
	System information							●	●	●	●	●	●	●	●	●	●	●
	Connected device setting							●	●	●	●	●	●	●	●	●	●	—
Screen design	Boot logo							●	●	●	●	●	●	●	●	●	●	●
	Comment registration						P.24, 38	●	●	●	●	●	●	●	●	●	●	●
	Parts registration							●	●	●	●	●	●	●	●	●	●	●
	Data operation function							●	●	●	●	●	●	●	●	●	●	●
	Offset function							●	●	●	●	●	●	●	●	●	●	●
	Security function	Security level authentication						●	●	●	●	●	●	●	●	●	●	●
		Operator authentication			Required		P.47	●	●	●	●	●	●	●	●	●	●	●
	Lamp display							●	●	●	●	●	●	●	●	●	●	●
	Touch switch							●	●	●	●	●	●	●	●	●	●	●
	Numeric display/input							●	●	●	●	●	●	●	●	●	●	●
	Data list display							●	●	●	●	●	●	●	●	●	●	●
	ASCII display/input							●	●	●	●	●	●	●	●	●	●	●
	Kana-Kanji conversion function	Normal version			Required			—	—	●	●	●	●	●	●	●	●	●
		Enhanced version			Required			●	●	●	●	●	●	●	●	●	●	●
	Clock display							●	●	●	●	●	●	●	●	●	●	●
	Comment display							●	●	●	●	●	●	●	●	●	●	●
	Extended alarm monitoring/display					(CF card)	P.44	●	●	●	●	●	●	●	●	●	●	●
	Alarm list display							●	●	●	●	●	●	●	●	●	●	●
	Alarm history display					(CF card)		●	●	●	●	●	●	●	●	●	●	●
	Floating alarm display							—	—	—	—	—	—	—	—	—	—	—
	Parts display					(CF card)		●	●	●	●	●	●	●	●	●	●	●
	Parts movement					(CF card)		●	●	●	●	●	●	●	●	●	●	●
	Panel meter display							●	●	●	●	●	●	●	●	●	●	●
	Level display							●	●	●	●	●	●	●	●	●	●	●
	Trend graph							●	●	●	●	●	●	●	●	●	●	●
	Historical trend graph※8				Required※5	(CF card)	P.46	●	●	●	●	●	●	●	●	●	●	●
	Line graph							●	●	●	●	●	●	●	●	●	●	●
	Bar graph							●	●	●	●	●	●	●	●	●	●	●
	Statistical graph							●	●	●	●	●	●	●	●	●	●	●
	Scatter graph							●	●	●	●	●	●	●	●	●	●	●
	Status observation function							●	●	●	●	●	●	●	●	●	●	●
	Advanced recipe function				Required	(CF card)	P.27	●	●	●	●	●	●	●	●	●	●	●
	Recipe function				Required	(CF card)		●	●	●	●	●	●	●	●	●	●	●
	Time action function							●	●	●	●	●	●	●	●	●	●	●
	Report function				Required	Printer unit CF card	P.28	●	●	●	●	●	●	●	●	●	●	●
	Hardcopy function	File saving in CF card				CF card		●	●	●	●	●	●	●	●	●	●	●
		Printing on printer			Required	Printer unit		●	●	●	●	●	●	●	●	●	●	●
	Barcode function				Required		P.28	●	●	●	●	●	●	●	●	●	●	—
	RFID function				Required			●	●	●	●	●	●	●	●	●	●	—
	Multimedia function				Required	Multimedia unit, CF card	P.30	●	●	—	—	—	—	—	—	—	—	—
Others	Remote personal computer function				Required	Video/RGB input unit		●	●	●	●	●	●	●	●	●	●	—
	Sound output function				Required	Sound output unit	P.31	●	●	●	●	●	●	●	●	●	●	●
	External input/output function				Required	External input/output unit		●	●	●	●	●	●	●	●	●	●	—
	Operation panel function				Required	External input/output unit		●	●	●	●	●	●	●	●	●	●	●
	Screen call function							●	●	●	●	●	●	●	●	●	●	●
	Operation log function				Required	CF card	P.47	●	●	●	●	●	●	●	●	●	●	●
	Document display function			Required※2 (GT15 only)	Required	CF card	P.45	●	●	●	●	●	●	●	●	●	●	●
	Logging function				Required	(CF card)	P.46	●	●	●	●	●	●	●	●	●	●	●
	Script function	Project script					P.25	●	●	●	●	●	●	●	●	●	●	●
		Screen script						●	●	●	●	●	●	●	●	●	●	●
		Object script			Required			●	●	●	●	●	●	●	●	●	●	●
	Device data transfer function				Required		P.29	●	●	●	●	●	●	●	●	●	●	●
Maintenance functions	Device monitor function						P.55	—	—	—	—	—	—	—	—	—	—	—
	System monitor function				Required		P.49	●	●	●	●	●	●	●	●	●	●	—
	List editor for A				Required		P.48	●	●	●	●	●	●	●	●	●	●	—
	List editor for FX				Required			●	●	●	●	●	●	●	●	●	●	—
	SFC monitor function			Required※2 (GT15 only)	Required	CF card	P.51	●	●	●	●	●	●	●	●	●		—
	Ladder monitor function			Required※2 (GT15 only)	Required	(CF card)	P.50	●	●	●	●	●	●	●	●	●	GT1555-VTBD only	—
	Intelligent unit monitor function				Required			●	●	●	●	●	●	●	●	●		—
	Q motion monitor function				Required			●	●	●	●	●	●	●	●	●	●	—
	Servo amplifier monitor function				Required		P.49	●	●	●	●	●	●	●	●	●	●	—
	Network monitor function				Required			●	●	●	●	●	●	●	●	●	●	—
	CNC monitor function				Required			●	●	●	●	●	—	—	—	—	—	—
	CNC data input/output function				Required	CF card/ USB memory <GT16 only>		●	●	●	●	●	—	—	—	—	—	—
	Backup/restoration function				Required		P.48	●	●	●	●	●	●	●	●	●	●	—
	Maintenance time notification function					Battery		●	●	●	●	●	●	●	●	●	●	—

GT11 GT10

Category		Function※1		Optional function board※2	Extended/optional function OS installation※2	Other necessary devices※3	Details page	GT11 GT115□-Q□BD QVGA 5.7"	GT11 GT115□-Q□BD QVGA 5.7"	GT11 GT115□HS-Q□BD QVGA※4 5.7"	GT10※4 GT105□-Q□BD QVGA 5.7"	GT10※4 GT1030-LBD(W)(2) 4.5"	GT10※4 GT1020-LB□(W)(2) 3.7"
Specifications	Supported image data format	BMP image display						●	●	●	●	●	●
		JPEG image display						—	—	—	—	—	—
		DXF data						●	●	●	●	●	●
		IGES data						●	●	●	—	—	—
	Standard fonts (basic)	Japanese, Japanese (supporting European languages), Chinese (Simplified), Chinese (Traditional, supporting European languages)						●	●	●	●※10	●※10	●※10
	Standard fonts (optional)	Chinese (Simplified)					P.42	—	—	—	—	—	—
		Chinese (Traditional)						—	—	—	—	—	—
		Japanese						—	—	—	—	—	—
	High-quality font							●	●	●	●	●	●
	TrueType font							●	●	●	●	●	●
	TrueType font (7 segments)						P.36	●	●	●	—	—	—
	Windows® font							●	●	●	●	●	●
	Stroke basic font (extended)							—	—	—	—	—	—
	Stroke font (optional)							—	—	—	—	—	—
Common settings	Parts (object + figure) layer function						P.26	●	●	●	—	—	—
	Screen switching							●	●	●	●	●	●
	Station No. switching							—	—	—	—	—	—
	Multilingual support function						P.25	●	●	●	●	●	●
	Password							●	●	●	●	●	●
	System information							●	●	●	●	●	●
	Connected device setting							●	●	●	●	●	●
Screen design	Boot logo							●	●	●	●	●	●
	Comment registration						P.24, 38	●	●	●	●	●	●
	Parts registration							●	●	●	●	●	●
	Data operation function							●	●	●	●	●	●
	Offset function							●	●	●	●	●	●
	Security function	Security level authentication						●	●	●	●	●	●
		Operator authentication					P.47	—	—	—	—	—	—
	Lamp display							●	●	●	●	●	●
	Touch switch							●	●	●	●	●	●
	Numeric display/input							●	●	●	●	●	●
	Data list display							●	●	●	—	—	—
	ASCII display/input							●	●	●	●	●	●
	Kana-Kanji conversion function	Normal version						—	—	—	—	—	—
		Enhanced version						—	—	—	—	—	—
	Clock display							●	●	●	●	●	●
	Comment display							●	●	●	●	●	●
	Extended alarm monitoring/display						P.44	—	—	—	—	—	—
	Alarm list display							●	●	●	●※7	●※7	●※7
	Alarm history display					(CF card)		●	●	●	●	●	●
	Floating alarm display							●	●	●	●	●	●
	Parts display							●	●	●	●	●	●
	Parts movement							●	●	●	—	—	—
	Panel meter display							●	●	●	●	●	●
	Level display							●	●	●	—	—	—
	Trend graph							●	●	●	●	●	●
	Historical trend graph※8						P.46	—	—	—	—	—	—
	Line graph							●	●	●	●	●	●
	Bar graph							●	●	●	●	●	●
	Statistical graph							●	●	●	●	●	●
	Scatter graph							●	●	●	—	—	—
	Status observation function							●	●	●	●	●	●
	Advanced recipe function						P.27	—	—	—	—	—	—
	Recipe function							●	●	●	●	●	●
	Time action function							●	●	●	●	●	●
	Report function						P.28	—	—	—	—	—	—
	Hardcopy function	File saving in CF card						—	—	—	—	—	—
		Printing on printer						—	—	—	—	—	—
	Barcode function				Required		P.28	●	●	—	●	●	●
	RFID function				Required			●	●	—	—	—	—
	Multimedia function						P.30	—	—	—	—	—	—
Others	Remote personal computer function							—	—	—	—	—	—
	Sound output function						P.31	—	—	—	—	—	—
	External input/output function							—	—	—	—	—	—
	Operation panel function							—	—	—	—	—	—
	Screen call function							●	●	●	●	●	●
	Operation log function						P.47	—	—	—	—	—	—
	Document display function						P.45	—	—	—	—	—	—
	Logging function						P.46	—	—	—	—	—	—
	Script function	Project script					P.25	●	●	●	—	—	—
		Screen script						●	●	●	—	—	—
		Object script						—	—	—	—	—	—
	Device data transfer function						P.29	—	—	—	—	—	—
Maintenance functions	Device monitor function						P.55	—	—	—	●	●	●
	System monitor function				Required		P.49	●	●	●	—	—	—
	List editor for A				Required		P.48	●	● GT115□-Q□BDA only	●	—	—	—
	List editor for FX				Required			●	—	●	●	—	—
	SFC monitor function						P.51	—	—	—	—	—	—
	Ladder monitor function						P.50	—	—	—	—	—	—
	Intelligent unit monitor function							—	—	—	—	—	—
	Q motion monitor function							—	—	—	—	—	—
	Servo amplifier monitor function						P.49	—	—	—	—	—	—
	Network monitor function							—	—	—	—	—	—
	CNC monitor function							—	—	—	—	—	—
	CNC data input/output function							—	—	—	—	—	—
	Backup/restoration function						P.48	—	—	—	—	—	—
	Maintenance time notification function							—	—	—	—	—	—

※1: The function details, such as the number of settings and the data storage destination, vary depending on the model.
※2: An optional function board may be required depending on the models, function version or hardware version of the GOT main unit. The optional function board to be used varies depending on the required function. For details, see "Notes for use" (page 77).
For the GT10 and GT SoftGOT1000, it is unnecessary to install an optional function board or the extended/optional function OS.
※3: Necessary options or optional units other than the optional function board are shown.
Parenthesized devices will be required depending on conditions of use. For details, see "Notes for use, Selection of optional units and devices" (page 77).
※4: For details, see "GT10" (page 52), "Handy GOT" (page 57) and "GT SoftGOT1000" (page 58).
※5: The RS-232 interface can be used as an RS-422 interface by connecting an RS-422 conversion unit.
※6: Structural restrictions are applied.
※7: Only user alarms can be used.
※8: To use the historical trend graph, it is necessary to specify the logging function in advance. In addition, it is necessary to install the optional function OS (logging).
※9: Read from the PLC clock.
※10: Only Japanese fonts (supporting European languages) can be used.
※11: Different connection configurations may require different communication units. For details, see the GOT1000 Series Handbook and the GOT1000 Series Connection Manual.

Product list

Main unit model name

GT16 9 5 M - X T B A □ □

Code	Screen size
9	15"
8	12.1"
7	10.4"
6	8.4"
5	5.7"
3	4.5"
2	3.7"

Code	Display colors
5	256 colors or more
2	16 colors
0	Monochrome

Code	Mounting type
V	Compatible with video/RGB
None	Panel mount type
HS	Handy type
M	Compatible with multimedia & Video/RGB

Code	Resolution
X	XGA (1024 × 768 dots)
S	SVGA (800 × 600 dots)
V	VGA (640 × 480 dots)
Q	QVGA (320 × 240 dots)
None	(288 × 96 dots) (160 × 64 dots)

Code	Display device
T	TFT color (high brightness, wide viewing angle)
N	TFT color
S	STN color
B	STN monochrome (blue/white)
L	STN monochrome

Code	Power supply
A	100 to 240VAC
D	24VDC
L	5VDC

Code	Communication interface
Q※1	With built-in bus connection interface for QCPU (Q mode)/motion controller CPU (Q series)
A※1	With built-in bus connection interface for QnA/ACPU/motion controller CPU (A series)
2※2	With built-in RS-232
None※2	With built-in RS-422

※1 : GT115□-Q□BDQ and GT115□-Q□BDA only
※2 : GT10 only

Code	Main unit frame
B	Black
W	White

Code	GT10 backlight
W	White backlight
None	Green backlight

GT16	A variety of 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, 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	GT1695	GT1695M-XTBA NEW	15" XGA [1024 × 768 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	15MB	Compatible with multimedia & Video/RGB
		GT1695M-XTBD NEW						24VDC		
	GT1685	GT1685M-STBA NEW	12.1" SVGA [800 × 600 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	15MB	Compatible with multimedia & Video/RGB
		GT1685M-STBD NEW						24VDC		
GT15	GT1595	GT1595-XTBA	15" XGA [1024 × 768 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	9MB	—
		GT1595-XTBD						24VDC		
	GT1585	GT1585V-STBA	12.1" SVGA [800 × 600 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	9MB	Compatible with Video/RGB
		GT1585V-STBD						24VDC		
		GT1585-STBA		TFT color LCD (high brightness, wide viewing angle)				100-240VAC		—
		GT1585-STBD						24VDC		
	GT157□	GT1575V-STBA	10.4" SVGA [800 × 600 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	9MB	Compatible with Video/RGB
		GT1575V-STBD						24VDC		
		GT1575-STBA		TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	9MB	—
		GT1575-STBD						24VDC		
		GT1575-VTBA	10.4" VGA [640 × 480 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	9MB	—
		GT1575-VTBD						24VDC		
		GT1575-VNBA		TFT color LCD			256 colors	100-240VAC	5MB	
		GT1575-VNBD						24VDC		
		GT1572-VNBA		TFT color LCD			16 colors	100-240VAC	5MB	
		GT1572-VNBD						24VDC		
	GT156□	GT1565-VTBA	8.4" VGA [640 × 480 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	100-240VAC	9MB	—
		GT1565-VTBD						24VDC		
		GT1562-VNBA		TFT color LCD			16 colors	100-240VAC	5MB	
		GT1562-VNBD						24VDC		
	GT155□	GT1555-VTBD	5.7" VGA [640 × 480 dots]	TFT color LCD (high brightness, wide viewing angle)			65,536 colors	24VDC	9MB	—
		GT1555-QTBD	5.7" QVGA [320 × 240 dots]							
		GT1555-QSBD		STN color LCD			4,096 colors			
		GT1550-QLBD		STN monochrome LCD			Monochrome (black/white) 16 gray scales			
GT11	GT1155	GT1155-QTBD	5.7" QVGA [320 × 240 dots]	TFT color LCD			256 colors	24VDC	3MB	—
		GT1155-QTBDQ								Dedicated to Q bus connection
		GT1155-QTBDA								Dedicated to A bus connection
		GT1155-QSBD		STN color LCD						—
		GT1155-QSBDQ								Dedicated to Q bus connection
		GT1155-QSBDA								Dedicated to A bus connection
	GT1150	GT1150-QLBD		STN monochrome LCD			Monochrome (black/white) 16 gray scales			—
		GT1150-QLBDQ								Dedicated to Q bus connection
		GT1150-QLBDA								Dedicated to A bus connection
	Handy GOT	GT1155HS-QSBD		STN color LCD			256 colors			—
		GT1150HS-QLBD		STN monochrome LCD			Monochrome (black/white) 16 gray scales			
GT10	GT105□	GT1055-QSBD NEW	5.7" QVGA [320 × 240 dots]	STN color LCD			256 colors	24VDC	3MB	—
		GT1050-QBBD NEW		STN monochrome LCD			Monochrome (blue/white) 16 gray scales			
	GT1030	GT1030-LBD	4.5" [288 × 96 dots]	STN monochrome LCD	Frame color		Monochrome (black/white)	3-color LED (green, orange, red)	24VDC	1.5MB	Dedicated to RS-422 connection
		GT1030-LBD2			Black			3-color LED (white, pink, red)			Dedicated to RS-232 connection
		GT1030-LBDW									Dedicated to RS-422 connection
		GT1030-LBDW2									Dedicated to RS-232 connection
		GT1030-LWD	4.5" [288 × 96 dots]	STN monochrome LCD	White		Monochrome (black/white)	3-color LED (green, orange, red)	24VDC	1.5MB	Dedicated to RS-422 connection
		GT1030-LWD2						3-color LED (white, pink, red)			Dedicated to RS-232 connection
		GT1030-LWDW									Dedicated to RS-422 connection
		GT1030-LWDW2									Dedicated to RS-232 connection
	GT1020	GT1020-LBD	3.7" [160 × 64 dots]	STN monochrome LCD	Black		Monochrome (black/white)	3-color LED (green, orange, red)	24VDC	512KB	Dedicated to RS-422 connection
		GT1020-LBD2							5VDC		Dedicated to RS-232 connection
		GT1020-LBL						3-color LED (white, pink, red)	24VDC		Dedicated to RS-422FX connection
		GT1020-LBDW									Dedicated to RS-422 connection
		GT1020-LBDW2									Dedicated to RS-232 connection
		GT1020-LBLW							5VDC		Dedicated to RS-422FX connection
		GT1020-LWD	3.7" [160 × 64 dots]	STN monochrome LCD	White		Monochrome (black/white)	3-color LED (green, orange, red)	24VDC	512KB	Dedicated to RS-422 connection
		GT1020-LWD2							5VDC		Dedicated to RS-232 connection
		GT1020-LWL						3-color LED (white, pink, red)	24VDC		Dedicated to RS-422FX connection
		GT1020-LWDW									Dedicated to RS-422 connection
		GT1020-LWDW2									Dedicated to RS-232 connection
		GT1020-LWLW							5VDC		Dedicated to RS-422FX connection

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/ACPU/motion controller CPU (A series)	●	●	—	—	—
	GT15-ABUS2	Bus connection (2ch) unit standard model for QnA/ACPU/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/ACPU/motion controller CPU (A series)	●	●	—	—	—
	GT15-75ABUS2L	Bus connection (2ch) unit thin model※1 for QnA/ACPU/motion controller CPU (A series)	●	●	—	—	—
Serial communication unit	GT15-RS2-9P	RS-232 serial communication unit (D-sub 9-pin (male))	●	●	—	—	—
	GT15-RS4-9S	RS-422/485 serial communication unit (D-sub 9-pin (female))※2 ※3	●	●	—	—	—
	GT15-RS4-TE	RS-422/485 serial communication unit (terminal block)※2 ※ Usable only when connecting to temperature controllers/indicating controllers via RS-485.	●	●	—	—	—
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	—	—	—
MELSECNET/H communication unit	GT15-J71LP23-25	Optical loop unit	●	●	—	—	—
	GT15-J71BR13	Coaxial bus unit	●	●	—	—	—
CC-Link IE controller network communication unit	GT15-J71GP23-SX	Optical loop unit	●	●	—	—	—
CC-Link communication unit	GT15-J61BT13	Intelligent device station unit (supporting CC-Link version 2)	●	●	—	—	—
Ethernet communication unit	GT15-J71E71-100	Ethernet (100Base-TX) unit	—	●	—	—	—

※1 : The unit cannot be used stacked on other units.
※2 : The unit may not be able to be used depending on the connection destination. See "List of connectable models" (page 66).
※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 GT155□.

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 NEW	For video input (NTSC/PAL) 1ch motion image playback	●	—	—	—	—
Video input unit	GT16M-V4 NEW	For video input (NTSC/PAL) 4ch	●	—	—	—	—
	GT15V-75V4	For video input (NTSC/PAL) 4ch	—	●※5	—	—	—
RGB input unit	GT16M-R2 NEW	For analog RGB input 2ch	●	—	—	—	—
	GT15V-75R1	For analog RGB input 1ch	—	●※5	—	—	—
Video/RGB input unit	GT16M-V4R1 NEW	For video input (NTSC/PAL) 4ch / analog RGB 1ch composite input	●	—	—	—	—
	GT15V-75V4R1	For video input (NTSC/PAL) 4ch / analog RGB 1ch composite input	—	●※5	—	—	—
RGB output unit	GT16M-ROUT NEW	For analog RGB output 1ch	●	—	—	—	—
	GT15V-75ROUT	For analog RGB output	—	●※5	—	—	—
CF card unit	GT15-CFCD	For additional CF card port (B drive) on the back of the GOT	●	●	—	—	—
CF card extension unit	GT15-CFEX-C08SET	For additional CF card port (B drive) at the front of the control panel※6	●	●	—	—	—
Sound output unit	GT15-SOUT	For sound output	●	●	—	—	—
External input/output unit	GT15-DIOR NEW	For external input/output devices and operation panel connection (negative common input / source type output)	●	●	—	—	—
	GT15-DIO	For external input/output devices and operation panel connection (positive common input / sink type output)	●	●	—	—	—

※5 : Only GT1585V and GT1575V are applicable.
※6 : Includes unit to be installed on the control panel, unit to be installed on the GOT, and connection cable (0.8m).

Software

Product name	Model name	Included products: Screen design software GT Designer2 Ver.2	Simulation software GT Simulator2 Ver.2	Simple data conversion function GT Converter2 Ver.2	SoftGOT function※7 GT SoftGOT1000 Ver.2	Remarks
GT Designer2 Version2	SW2D5C-GTD2-E Version upgrade	●	—	●	●	English version
	SW2D5C-GTD2-EV Version upgrade	Version upgrade software (to upgrade GT Designer2 to the latest version)				English version
GT Works2 Version2	SW2D5C-GTWK2-E Version upgrade	●	●	●	●	English version
	SW2D5C-GTWK2-EV Version upgrade	Version upgrade software (to upgrade GT Works2 to the latest version)				English version
License key for GT SoftGOT1000※7	GT15-SGTKEY-U	For USB port				–
	GT15-SGTKEY-P	For parallel port				–

※7 : To use GT SoftGOT1000, a license key for GT SoftGOT1000 is necessary for each personal computer.

Product list

Options

Product name	Model name	Specifications		GT16	GT15	GT11	Handy GOT	GT10
Backlight	GT16-90XLTT NEW	Backlight	For GT1695M-XTB□	●	–	–	–	–
	GT16-80SLTT NEW		For GT1685M-STB□	●	–	–	–	–
	GT15-90XLTT		For GT1595-XTB□	–	●	–	–	–
	GT15-80SLTT		For GT1585V-STB□/GT1585-STB□	–	●	–	–	–
	GT15-70SLTT		For GT1575-STB□ ※1	–	●	–	–	–
	GT15-70VLTT		For GT1575V-STB□/GT1575-VTB□/GT1575-STB□ ※2	–	●	–	–	–
	GT15-70VLTN		For GT1575-VNB□/GT1572-VNB□	–	●	–	–	–
	GT15-60VLTT		For GT1565-VTB□	–	●	–	–	–
	GT15-60VLTN		For GT1562-VNB□	–	●	–	–	–
Optional function board	GT16-MESB NEW	Optional function board ※ The required optional function board varies depending on the GOT main unit and function. For the details, see "Notes for use" (page 77).	For MES interface function	●	–	–	–	–
	GT15-FNB		(No expansion memory)	–	●	–	–	–
	GT15-QFNB		(No expansion memory)	–	●	–	–	–
	GT15-QFNB16M		+ 16MB expansion memory	–	●	–	–	–
	GT15-QFNB32M		+ 32MB expansion memory	–	●	–	–	–
	GT15-QFNB48M		+ 48MB expansion memory	–	●	–	–	–
	GT15-MESB48M		+ 48MB expansion memory	–	●	–	–	–
	GT11-50FNB	Optional function board		–	–	● ※3	●	–
GT10 memory loader	GT10-LDR	For GT1030/GT1020 (for OS project data transfer) no power source required		–	–	–	–	● ※7
GT10 memory board	GT10-50FMB NEW	For GT105□ (for OS and project data transfer)		–	–	–	–	● ※8
Protective sheet	GT16-90PSCB NEW	Protective sheet for 15" screen	Clear, 5 sheets	●	–	–	–	–
	GT16-90PSGB NEW		Antiglare, 5 sheets	●	–	–	–	–
	GT16-90PSCW NEW		Clear (frame: white), 5 sheets	●	–	–	–	–
	GT16-90PSGW NEW		Antiglare (frame: white), 5 sheets	●	–	–	–	–
	GT15-90PSCB		Clear, 5 sheets	–	●	–	–	–
	GT15-90PSGB		Antiglare, 5 sheets	–	●	–	–	–
	GT15-90PSCW		Clear (frame: white), 5 sheets	–	●	–	–	–
	GT15-90PSGW		Antiglare (frame: white), 5 sheets	–	●	–	–	–
	GT16-80PSCB NEW	Protective sheet for 12.1" screen	Clear, 5 sheets	●	–	–	–	–
	GT16-80PSGB NEW		Antiglare, 5 sheets	●	–	–	–	–
	GT16-80PSCW NEW		Clear (frame: white), 5 sheets	●	–	–	–	–
	GT16-80PSGW NEW		Antiglare (frame: white), 5 sheets	●	–	–	–	–
	GT15-80PSCB		Clear, 5 sheets	–	●	–	–	–
	GT15-80PSGB		Antiglare, 5 sheets	–	●	–	–	–
	GT15-80PSCW		Clear (frame: white), 5 sheets	–	●	–	–	–
	GT15-80PSGW		Antiglare (frame: white), 5 sheets	–	●	–	–	–
	GT15-70PSCB	Protective sheet for 10.4" screen	Clear, 5 sheets	–	●	–	–	–
	GT15-70PSGB		Antiglare, 5 sheets	–	●	–	–	–
	GT15-70PSCW		Clear (frame: white), 5 sheets	–	●	–	–	–
	GT15-70PSGW		Antiglare (frame: white), 5 sheets	–	●	–	–	–
	GT15-60PSCB	Protective sheet for 8.4" screen	Clear, 5 sheets	–	●	–	–	–
	GT15-60PSGB		Antiglare, 5 sheets	–	●	–	–	–
	GT15-60PSCW		Clear (frame: white), 5 sheets	–	●	–	–	–
	GT15-60PSGW		Antiglare (frame: white), 5 sheets	–	●	–	–	–
	GT15-50PSCB	Protective sheet for 5.7" screen (for GT15)	Clear, 5 sheets	–	●	–	–	–
	GT15-50PSGB		Antiglare, 5 sheets	–	●	–	–	–
	GT15-50PSCW		Clear (frame: white), 5 sheets	–	●	–	–	–
	GT15-50PSGW		Antiglare (frame: white), 5 sheets	–	●	–	–	–
	GT11-50PSCB	Protective sheet for 5.7" screen (for GT11)	Clear, 5 sheets	–	–	●	–	–
	GT11-50PSGB		Antiglare, 5 sheets	–	–	●	–	–
	GT11-50PSCW		Clear (frame: white), 5 sheets	–	–	●	–	–
	GT11-50PSGW		Antiglare (frame: white), 5 sheets	–	–	●	–	–
	GT11H-50PSC	Protective sheet for 5.7" screen (for Handy GOT)	Clear, 5 sheets	–	–	–	●	–
	GT10-50PSCB NEW	Protective sheet for 5.7" screen (for GT105□)	Clear, 5 sheets	–	–	–	–	●
	GT10-50PSGB NEW		Antiglare, 5 sheets	–	–	–	–	●
	GT10-50PSCW NEW		Clear (frame: white), 5 sheets	–	–	–	–	●
	GT10-50PSGW NEW		Antiglare (frame: white), 5 sheets	–	–	–	–	●
	GT10-30PSCB	Protective sheet for 4.5" screen (for GT1030)	Clear, 5 sheets	–	–	–	–	●
	GT10-30PSGB		Antiglare, 5 sheets	–	–	–	–	●
	GT10-30PSCW		Clear (frame: white), 5 sheets	–	–	–	–	●
	GT10-30PSGW		Antiglare (frame: white), 5 sheets	–	–	–	–	●
	GT10-20PSCB	Protective sheet for 3.7" screen (for GT1020)	Clear, 5 sheets	–	–	–	–	●
	GT10-20PSGB		Antiglare, 5 sheets	–	–	–	–	●
	GT10-20PSCW		Clear (frame: white), 5 sheets	–	–	–	–	●
	GT10-20PSGW		Antiglare (frame: white), 5 sheets	–	–	–	–	●
USB protective cover	GT16-UCOV NEW	Protective cover for USB interface on main unit front panel (for replacement)	For 15"/12.1"	●	–	–	–	–
	GT15-UCOV		For 15"/12.1"/10.4"/8.4"	–	●	–	–	–
	GT11-50UCOV		For 5.7"	–	●	●	–	–
Oil resistant cover ※5	GT05-90PCO	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		–	●	●	–	● ※8
Emergency stop switch guard	GT11H-50ESCOV	For accidental operation prevention of emergency stop switch		–	–	–	●	–
Stand	GT15-90STAND	Stand for 15" type		●	●	–	–	–
	GT15-80STAND	Stand for 12.1" type		●	●	–	–	–
	GT15-70STAND	Stand for 8.4"/10.4" type		–	●	–	–	–
	GT05-50STAND	Stand for 5.7" type		–	●	●	–	● ※8
CF card	GT05-MEM-32MC	32MB flash ROM		●	●	●	●	–
	GT05-MEM-64MC	64MB flash ROM		●	●	●	●	–
	GT05-MEM-128MC	128MB flash ROM		●	●	●	●	–
	GT05-MEM-256MC	256MB flash ROM		●	●	●	●	–
	GT05-MEM-512MC coming soon	512MB flash ROM		●	●	●	●	–
	GT05-MEM-1GC coming soon	1GB flash ROM		●	●	●	●	–
	GT05-MEM-2GC coming soon	2GB flash ROM		●	●	●	●	–
Memory card adapter	GT05-MEM-ADPC	CF card→memory card (TYPE Ⅱ) conversion adapter		●	●	●	●	–

Options

Product name	Model name	Specifications				GT16	GT15	GT11	Handy GOT	GT10
Attachment	GT15-70ATT-98	Attachment for 10.4" type	A985GOT ※6		→GT157□	–	●	–	–	–
	GT15-70ATT-87		A870GOT-SWS A870GOT-TWS A870GOT-TW	A8GT-70GOT-TB A8GT-70GOT-SW A8GT-70GOT-SB			●	–	–	–
	GT15-60ATT-97	Attachment for 8.4" type	A97□GOT		→GT156□	–	●	–	–	–
	GT15-60ATT-96		A960GOT				●	–	–	–
	GT15-60ATT-87		A870GOT-EWS A8GT-70GOT-EW A8GT-70GOT-EB	A77GOT-EL-S5 A77GOT-EL-S3 A77GOT-EL			●	–	–	–
	GT15-60ATT-77		A77GOT-CL-S5 A77GOT-CL-S3 A77GOT-CL	A77GOT-L-S5 A77GOT-L-S3 A77GOT-L			●	–	–	–
	GT15-50ATT-95W	Attachment for 5.7" type	A956WGOT		→GT155□ →GT115□	–	●	●	–	–
	GT15-50ATT-85		A85□GOT				●	●	–	–
Battery	GT15-BAT	Battery for backup of clock data and maintenance time notification data				●	●	–	–	–
	GT11-50BAT	Battery for backup of clock data, alarm history, and recipe data (for replacement)				–	–	●	●	● ※4

※1: Function version B or earlier
※2: Function version C or later
※3: Excluding GT115□-Q□BDQ and GT115□-Q□BDA
※4: For GT105□/GT1030 only
※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: Including the GP250□ and GP260□ manufactured by Pro-face.
※7: For GT1030/GT1020 only
※8: For GT105□ only

Manuals

Manual title	Contents	Catalog No.
GT Designer2 Version2 Basic Operation/Data Transfer Manual <for GOT1000 Series>	Basic software installation, basic screen design techniques, and data transfer to a terminal	SH-080529ENG
GT Designer2 Version2 Screen Design Manual <for GOT1000 Series>	Programming manual, including instruction for objects, specifications	SH-080530ENG
GOT1000 Series Connection Manual	System configurations and procedure to create customized cables	SH-080532ENG
GOT1000 Series Extended Function/Optional Function Manual	Information on extended functions and optional functions available to the GOT	SH-080544ENG
GOT1000 Series Gateway Function Manual	Specifications, system configurations, and setting procedures for the Gateway function	SH-080545ENG
GOT1000 Series MES Interface Function Manual	Specifications, system configurations, and setting procedures for the MES interface function	SH-080654ENG
GT16 User's Manual	GT16 general specification overview, parts and settings, external dimensions, mounting, wiring, optional interfaces	SH-080778ENG
GT15 User's Manual	GT15 general specification overview, parts and settings, external dimensions, mounting, wiring, optional interfaces	SH-080528ENG
GT11 User's Manual	GT11 general specification overview, parts and settings, external dimensions, mounting, wiring, optional interfaces	JY997D17501
Handy GOT User's Manual	Handy GOT general specification overview, parts and settings, external dimensions, wiring, optional interfaces, in addition to explanations of utility, system configurations, and cable fabrication	JY997D20101
GT10 User's Manual	GT10 general specification overview, parts and settings, external dimensions, mounting, wiring, optional interfaces	JY997D24701
GT SoftGOT1000 Version2 Operation Manual	GT SoftGOT1000 screen configuration, functions, and operating procedures	SH-080602ENG
GT Simulator2 Version2 Operation Manual	GT Simulator2 specifications and operating instructions	SH-080546ENG
GT Converter2 Version2 Operation Manual	GT Converter2 operating instructions	SH-080533ENG

Product list

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-QC06B	0.6m	○	For connection between QCPU and GOT For connection between GOT and GOT	●	●	●	–	–
		GT15-QC12B	1.2m							
		GT15-QC30B	3m							
		GT15-QC50B	5m							
		GT15-QC100B	10m							
	Long-distance connection cable for QCPU GOT-to-GOT long-distance connection cable	GT15-QC150BS	15m	○	For long-distance (13.2m or more) connection between QCPU and GOT (A9GT-QCNB required) For long-distance connection between GOT and GOT	●	●	●	–	–
		GT15-QC200BS	20m							
		GT15-QC250BS	25m							
		GT15-QC300BS	30m							
		GT15-QC350BS	35m							
Bus extension connector box		A9GT-QCNB	–	–	Used for QCPU long-distance (13.2m or more) bus connection	●	●	●	–	–
Bus connection cable for QnA/ACPU/motion controller CPU (A series)	Large CPU extension cable	GT15-C12NB	1.2m	○	For connection between QnA/ACPU/motion controller CPU (A series, extension base) and GOT	●	●	●	–	–
		GT15-C30NB	3m							
		GT15-C50NB	5m							
		GT15-AC06B	0.6m	○	For connection between QnA/ACPU/motion controller CPU (A series, extension base) and A7GT-CNB	●	●	●	–	–
		GT15-AC12B	1.2m							
		GT15-AC30B	3m							
		GT15-AC50B	5m							
		GT15-A370C12B-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 extension cable	GT15-A1SC07B	0.7m	○	For connection between QnAS/AnSCPU/motion controller CPU (A series) and GOT	●	●	●	–	–
		GT15-A1SC12B	1.2m							
		GT15-A1SC30B	3m							
		GT15-A1SC50B	5m	○	For connection between QnAS/AnSCPU and GOT	●	●	●	–	–
	Small CPU extension cable	GT15-A1SC05NB	0.45m	○	For connection between QnAS/AnSCPU/motion controller CPU (A series) and A7GT-CNB	●	●	●	–	–
		GT15-A1SC07NB	0.7m							
		GT15-A1SC30NB	3m							
		GT15-A1SC50NB	5m	○	For connection between QnAS/AnSCPU and A7GT-CNB	●	●	●	–	–
	Small CPU long-distance connection cable	GT15-C100EXSS-1	10.6m	○	For long-distance connection between QnAS/AnSCPU/motion controller CPU (A series) and GOT For long-distance connection between A7GT-CNB and GOT ※Set of GT15-EXCNB and GT15-C□BS	●	●	●	–	–
		GT15-C200EXSS-1	20.6m							
		GT15-C300EXSS-1	30.6m							
	GOT-to-GOT connection cable	GT15-C07BS	0.7m	○	For connection between GOT and GOT	●	●	●	–	–
		GT15-C12BS	1.2m							
		GT15-C30BS	3m							
		GT15-C50BS	5m							
	GOT-to-GOT long-distance connection cable	GT15-C100BS	10m	○	For connection between GOT and GOT	●	●	●	–	–
		GT15-C200BS	20m							
		GT15-C300BS	30m							
	A0J2HCPU connection cable	GT15-J2C10B	1m	○	For connection between power supply unit (A0J2-PW) for A0J2HCPU and GOT	●	●	●	–	–
Bus connector conversion box		A7GT-CNB	–	–	Used for QnA/ACPU long-distance bus connection	●	●	●	–	–
Buffer circuit cable		GT15-EXCNB	0.5m	○	Usable as GT15-C□EXSS-1 in combination with GT15-C□BS	●	●	●	–	–
Ferrite core set for Q bus cable (two-pack)		GT15-QFC	–	○	Ferrite cores for replacing existing GOT-A900 bus cable with bus cable for GOT1000	●	●	●	–	–
Ferrite core set for A bus cable (two-pack)		GT15-AFC	–							
RS-422 conversion cable NEW		GT16-C02R4-9S	0.2m	○	For connection between RS-422/485 (connector) and RS-422 cable (D-sub 9 pins)	●	–	–	–	–
RS-485 terminal block conversion unit NEW		FA-LTBGTR4CBL05	0.5m	○	For connection between RS-422/485 (connector) and terminal block conversion cable	●	–	–	–	–
		FA-LTBGTR4CBL10	1m							
		FA-LTBGTR4CBL20	2m							
RS-422 cable	QnA/A/FXCPU direct connection cable Computer link connection cable	GT01-C30R4-25P	3m	–	For connection between QnA/ACPU/motion controller CPU (A series)/FXCPU (D-sub 25-pin connector) and GOT For connection between FA-CNV□CBL and GOT For connection between serial communication unit and GOT For connection between AJ65BT-G4-S3 and GOT	●	●	●	※3 –	●※4
		GT01-C100R4-25P	10m							
		GT01-C200R4-25P	20m							
		GT01-C300R4-25P	30m							
		GT10-C30R4-25P	3m	–	For connection between QnA/A/FXCPU (D-sub 25-pin connector) and GOT For connection between serial communication unit (AJ71QC24(N)-R4) and GOT	–	–	–	–	●※5
		GT10-C100R4-25P	10m							
		GT10-C200R4-25P	20m							
		GT10-C300R4-25P	30m							
	Computer link connection cable	GT09-C30R4-6C	3m	○	For connection between serial communication unit and GOT For connection between computer link unit and GOT	●	●	●	–	●※4
		GT09-C100R4-6C	10m							
		GT09-C200R4-6C	20m							
		GT09-C300R4-6C	30m							
	FXCPU direct connection cable FX communication function extension board connection cable	GT01-C10R4-8P	1m	–	For connection between FXCPU (MINI-DIN 8-pin connector) and GOT For connection between FXCPU communication function extension board and GOT	●	●	●	–	●※4
		GT01-C30R4-8P	3m							
		GT01-C100R4-8P	10m							
		GT01-C200R4-8P	20m							
		GT01-C300R4-8P	30m							
		GT10-C10R4-8P	1m			–	–	–	–	●※5
		GT10-C30R4-8P	3m							
		GT10-C100R4-8P	10m							
		GT10-C200R4-8P	20m							
		GT10-C300R4-8P	30m							
		GT10-C10R4-8PL	1m	–	For connection between FXCPU (MINI-DIN 8-pin connector) and GOT For connection between FXCPU communication function extension board and GOT ※The unit cannot be used with the FX1NC, FX2NC, FX3UC-D/DSS, FX3G.	–	–	–	–	●※5
RS-232 cable	QCPU direct connection cable Data transfer cable	GT01-C30R2-6P	3m	–	For connection between QCPU and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin)	●	●	●	–	●※4
					For connection between personal computer (screen design software) (D-sub 9-pin, female) and GOT (MINI-DIN 6-pin, male)	–	–	–	●	●※5
		GT10-C30R2-6P	3m	–	For connector conversion box between QCPU and Handy GOT	–	–	–	–	●※5
		GT11H-C30R2-6P	3m	–	For connection between QCPU and GOT and between GOTs.	–	–	–	●	–
	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) For connection between FXCPU communication function adapter (D-sub 9-pin connector) and GOT For connection between personal computer (screen design software) (D-sub 9-pin, female) and GOT (D-sub 9-pin, female)	●	●	●	–	●※4

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 adapter connection cable	GT01-C30R2-25P	3m	–	For connection between FXCPU communication special adapter (D-sub 25-pin connector) and GOT, personal computer (GT SoftGOT1000) (D-sub 9-pin)	●	●	●	–	●※4
	Computer link connection cable	GT09-C30R2-9P	3m	○	For connection between serial communication unit and GOT For connection between computer link unit and GOT For connection between AJ65BT-R2N and GOT (GT09-C30R2-9P only)	●	●	●	–	●※4
		GT09-C30R2-25P	3m							
Connector conversion box for Handy GOT		GT11H-CNB-37S	–	–	Converts D-sub 37-pin connector to terminal block and D-sub 9-pin connector	–	–	–	●	–
External connection cable	FA device, power supply and operation switch connection cable	GT11H-C30-37P	3m	–	For connection between FA device connection relay cable and GOT	–	–	–	●	–
		GT11H-C60-37P	6m							
		GT11H-C100-37P	10m							
		GT11H-C30	3m	–	For connection between FA device, power supply and operation switches and GOT	–	–	–	●	–
		GT11H-C60	6m							
		GT11H-C100	10m							
FA device connection relay cable	RS-422, power supply and operation switch connection cable	GT11H-C15R4-8P	1.5m	–	For connection between FXCPU and GOT For connection between power supply and operation switches and GOT	–	–	–	●	–
		GT11H-C15R4-25P	1.5m	–	For connection between A/QnACPU and GOT 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 For connection between power supply and operation switches and GOT	–	–	–	●	–
Barcode reader connection cable		GT10-C20H-6PT9P	0.3m	–	For connection between barcode reader (D-sub 9-pin, female) and GOT (MINI-DIN 6-pin, female) RS-232	–	–	–	–	●※5
External I/O unit connection conversion cable		GT15-C03HTB	0.3m	○	For connection between GOT1000 (external I/O unit) and GOT-A900 external I/O interface unit connection cable (A8GT-C05TK/A8GT-C30TB/user-fabricated cable)	●	●	–	–	–
Analog RGB cable NEW		GT15-C50VG	5m	○	For connection between external monitor, personal computer and vision sensor and GOT	●	●	–	–	–
USB cable	RS-232/USB conversion adapter for data transfer	GT10-RS2TUSB-5S	–	–	For connection between personal computer (USB) and GOT (RS-232) (Adapter and personal computer are connected with GT09-C30USB-5P.)	–	–	–	–	●※5
	Data transfer cable	GT09-C30USB-5P	3m	○	For connection between personal computer (USB) and GOT (USB mini-B) For connection between QnUCPU (USB mini-B) and personal computer (GT SoftGOT1000)	●	●	●	●	●※4
					For connection between printer and GOT (printer unit)	●	●	–	–	–

※1 : FA-LTBGTR4CBL□ is developed by Mitsubishi Electric Engineering Company Limited and sold through your local sales office.
The other products listed are developed by Mitsubishi Electric System & Service Co., LTD. 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 the GOT1000 Series Handbook 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□.
※5 : Can be used only for GT1030 and GT1020.

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	GT10
RS-232 cable	Cable for OMRON PLC	GT09-C30R20101-9P	3m	○	PLC CPU: CQM1/CQM1H/CS1/CJ1/CV500/CV1000/CV2000/CVM1 Serial communication unit: CS1W-SCU21/CJ1W-SCU41 Communication board: C200HW-COM02/COM05/COM06 Serial communication board: CQM1-SCB41/CS1W-SCB41/CS1W-SCB21	●	●	●	※3	●※4
		GT09-C30R20102-25S	3m		Connection cable: CQM1-CIF01					
		GT09-C30R20103-25P	3m		Base mount type host link unit: C500-LK201-V1					
	Cable for KEYENCE PLC	GT09-C30R21101-6P	3m		PLC CPU: KV-700/1000					
		GT09-C30R21102-9S	3m		Multi-communication unit: KV-L20/L20R port 1					
		GT09-C30R21103-3T	3m		Multi-communication unit: KV-L20/L20R port 2					
	Cable for SHARP PLC	GT09-C30R20601-15P	3m		PLC CPU: JW-22CU/70CUH/100CUH/100CU					
		GT09-C30R20602-15P	3m		PLC CPU: JW-32CUH/33CUH					
	Cables for JTEKT PLC	GT09-C30R21201-25P	3m		RS-232/RS-422 converter: TXU-2051					–
	Cable for Shinko Technos digital indicating controller	GT09-C30R21401-4T	3m		Digital indicating controller: FCR-100/FCD-100/FCR-23A/PC-900/FIR series					
	Cable for TOSHIBA PLC	GT09-C30R20501-9P	3m		PLC CPU: T2E					
		GT09-C30R20502-15P	3m		PLC CPU: T2N					
	Cable for Hitachi Industrial Equipment Systems PLC	GT09-C30R20401-15P	3m		PLC CPU: H-4010/H series board type/EH-150 series Intelligent serial port module: COMM-H/COMM-2H					
		GT09-C30R20402-15P	3m		PLC CPU: H-4010/EH-150 series					
	Cable for Hitachi PLC	GT09-C30R21301-9S	3m		Communication module: LQE560/LQE060/LQE160					
	Cable for Fuji Electric FA Components & Systems PLC	GT09-C30R21003-25P	3m		RS-232C interface card: NV1L-RS2 RS-232C/485 interface capsule: FFK120A-C10 General interface module: NC1L-RS2/FFU120B					
	Cable for Matsushita Electric Works PLC	GT09-C30R20901-25P	3m		RS-422→232 conversion adapter: AFP8550					●※4
		GT09-C30R20902-9P	3m		PLC CPU: FP2/FP2SH/FP10(S)/FP10SH/FP-M Computer communication unit: AFP2462/AFP3462/AFP5462					
		GT09-C30R20903-9P	3m		PLC CPU: FP1-C24C/C40C					
		GT09-C30R20904-3C	3m		PLC CPU: FP1-C16CT/C32CT					
	Cable for YASKAWA Electric PLC	GT09-C30R20201-9P	3m		PLC CPU: PROGIC-8/MP-920/MP-930					
		GT09-C30R20202-15P	3m		PLC CPU: PROGIC-8					
		GT09-C30R20203-9P	3m		PLC CPU: CP-9300MS MEMOBUS module: CP-217IF (when connected to CN1)					
		GT09-C30R20204-14P	3m		PLC CPU: MP940					
		GT09-C30R20205-25P	3m		MEMOBUS module: CP-217IF (when connected to CN2) Yokogawa Electric personal computer module: LC01-0N/LC02-0N					
	Cable for Yokogawa Electric PLC	GT09-C30R20301-9P	3m		CPU port/D-sub 9-pin conversion cable: KM10-0C					–
		GT09-C30R20302-9P	3m		Personal computer module: F3LC11-1N/F3LC11-1F/F3LC12-1F/F3LC11-2N					
		GT09-C30R20305-9S	3m		PLC CPU: NFCP1000/NFJT100					
	Cable for Yokogawa Electric temperature controller	GT09-C30R20304-9S	3m		Converter: ML2-□					
	Cable for Allen-Bradley (Rockwell Automation, Inc.) PLC	GT09-C30R20701-9S	3m		PLC CPU: SL500 series Converter: 1761-NET-AIC					●※4
	Cable for Siemens AG PLC	GT09-C30R20801-9S	3m		HMI adapter					

※1 : Items listed above are developed by Mitsubishi Electric System & Service Co., LTD., 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 the GOT1000 Series Handbook and the GOT1000 Series Connection Manual.
※3 : 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.
※4 : Can be used only for GT105□.

Product list

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	GT10
RS-422 cable	Cable for OMRON PLC	GT09-C30R40101-9P	3m	○	PLC CPU: CV500/CV1000/CV2000/CVM1 Serial communication unit: CJ1W-SCU41 Serial communication board: CQM1-SCB41/CS1W-SCB41	●	●	●	*3	–
		GT09-C100R40101-9P	10m							
		GT09-C200R40101-9P	20m							
		GT09-C300R40101-9P	30m							
		GT09-C30R40102-9P	3m		Base mount type host link unit: C200H-LK202-V1/C500H-LK201-V1 Communication board: C200HW-COM03/COM06					● *4
		GT09-C100R40102-9P	10m							
		GT09-C200R40102-9P	20m							
		GT09-C300R40102-9P	30m							
		GT09-C30R40103-5T	3m		Communication board: CP1W-CIF11					
		GT09-C100R40103-5T	10m							
		GT09-C200R40103-5T	20m							
		GT09-C300R40103-5T	30m							
	Cable for KEYENCE PLC	GT09-C30R41101-5T	3m		Multi-communication unit: KV-L20/L20R port 2					
		GT09-C100R41101-5T	10m							
		GT09-C200R41101-5T	20m							
		GT09-C300R41101-5T	30m							
	Cable for SHARP PLC	GT09-C30R40601-15P	3m		PLC CPU: JW-22CU/70CUH/100CUH/100CU					
		GT09-C100R40601-15P	10m							
		GT09-C200R40601-15P	20m							
		GT09-C300R40601-15P	30m							
		GT09-C30R40602-15P	3m		PLC CPU: JW-32CUH/33CUH					
		GT09-C100R40602-15P	10m							
		GT09-C200R40602-15P	20m							
		GT09-C300R40602-15P	30m							
		GT09-C30R40603-6T	3m		Link unit: JW-21CM/10CM/ZW-10CM					
		GT09-C100R40603-6T	10m							
		GT09-C200R40603-6T	20m							
		GT09-C300R40603-6T	30m							
	Cable for JTEKT PLC	GT09-C30R41201-6C	3m		PLC CPU: PC3J/PC3JL Communication module: PC/CMP2-LINK					
		GT09-C100R41201-6C	10m							
		GT09-C200R41201-6C	20m							
		GT09-C300R41201-6C	30m							
	Cable for TOSHIBA PLC	GT09-C30R40501-15P	3m		PLC CPU: T2/T3/T3H/model3000(S3)					
		GT09-C100R40501-15P	10m							
		GT09-C200R40501-15P	20m							
		GT09-C300R40501-15P	30m							
		GT09-C30R40502-6C	3m		PLC CPU: T2E/model2000(S2)					
		GT09-C100R40502-6C	10m							
		GT09-C200R40502-6C	20m							
		GT09-C300R40502-6C	30m							
		GT09-C30R40503-15P	3m		PLC CPU: T2N					
		GT09-C100R40503-15P	10m							
		GT09-C200R40503-15P	20m							
		GT09-C300R40503-15P	30m							
	Cable for Hitachi Industrial Equipment Systems PLC	GT09-C30R40401-7T	3m		Intelligent serial port module: COMM-H/COMM-2H					
		GT09-C100R40401-7T	10m							
		GT09-C200R40401-7T	20m							
		GT09-C300R40401-7T	30m							
	Cable for Hitachi PLC	GT09-C30R41301-9S	3m		PLC CPU: LQP510 Communication module: LQE565/LQE165					
		GT09-C100R41301-9S	10m							
		GT09-C200R41301-9S	20m							
		GT09-C300R41301-9S	30m							
	Cable for Fuji Electric FA Components & Systems PLC	GT09-C30R41001-6T	3m		RS-232C/485 interface capsule: FFK120A-C10 General interface module: NC1L-RS4/FFU120B					
		GT09-C100R41001-6T	10m							
		GT09-C200R41001-6T	20m							
		GT09-C300R41001-6T	30m							
	Cable for Yaskawa Electric PLC	GT09-C30R40201-9P	3m		MEMOBUS module: JAMSC-120NOM27100/JAMSC-IF612					
		GT09-C100R40201-9P	10m							
		GT09-C200R40201-9P	20m							
		GT09-C300R40201-9P	30m							● *4
		GT09-C30R40202-14P	3m		PLC CPU: MP940					
		GT09-C100R40202-14P	10m							
		GT09-C200R40202-14P	20m							
		GT09-C300R40202-14P	30m							
	Cable for Yokogawa Electric PLC	GT09-C30R40301-6T	3m		Personal computer link module: F3LC11-2N					
		GT09-C100R40301-6T	10m							
		GT09-C200R40301-6T	20m							
		GT09-C300R40301-6T	30m							
		GT09-C30R40302-6T	3m		Personal computer link module: LC02-0N					
		GT09-C100R40302-6T	10m							
		GT09-C200R40302-6T	20m							
		GT09-C300R40302-6T	30m							–
		GT09-C30R40303-6T	3m		Temperature controller: GREEN series					
		GT09-C100R40303-6T	10m							
		GT09-C200R40303-6T	20m							
		GT09-C300R40303-6T	30m							
		GT09-C30R40304-6T	3m		Temperature controller: UT2000 series					
		GT09-C100R40304-6T	10m							
		GT09-C200R40304-6T	20m							
		GT09-C300R40304-6T	30m							

*1 : Items listed above are developed by Mitsubishi Electric System & Service Co., LTD., 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 the GOT1000 Series Handbook and the GOT1000 Series Connection Manual.
*3 : 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.
*4 : Can be used only for GT105□.

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.
①Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
②Failure caused by unapproved modifications, etc., to the product by the user.
③When 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.
④Failure that could have been avoided if consumable parts designated in the user's manual etc. had been correctly serviced or replaced.
⑤Replacing consumable parts such as the battery, backlight and fuses.
⑥Failure 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.
⑦Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.
⑧Any 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.

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.

Country/Region	Sales office	Tel/Fax
USA	Mitsubishi Electric Automation Inc. 500 Corporate Woods Parkway, Vernon Hills, IL 60061, USA	Tel: +1-847-478-2100 Fax: +1-847-478-0327
Brazil	MELCO-TEC Rep. Com.e Assessoria Tecnica Ltda. Av. Paulista, 1439-CJ. 72 Cerqueira Cesar CEP 01311-200, Sao Paulo, SP, CEP: 01311-200, Brazil	Tel: +55-11-3146-2200 Fax: +55-11-3146-2217
Germany	Mitsubishi Electric Europe B.V. German Branch Gothaer Strasse 8, D-40880 Ratingen, Germany	Tel: +49-2102-486-0 Fax: +49-2102-486-1120
UK	Mitsubishi Electric Europe B.V. UK Branch Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, UK.	Tel: +44-1707-276100 Fax: +44-1707-278992
Italy	Mitsubishi Electric Europe B.V. Italy Branch Viale Colleoni 7-20041 Agrate Brianza (Milano), Italy	Tel: +39-039-60531 Fax: +39-039-6053312
Spain	Mitsubishi Electric Europe B.V. Spanish Branch Ctra. de Rubí 76-80-AC.420, E-08190 Sant Cugat del Vallés (Barcelona), Spain	Tel: +34-93-565-3131 Fax: +34-93-589-2948
France	Mitsubishi Electric Europe B.V. French Branch 25, Boulevard des Bouvets, F-92741 Nanterre Cedex, France	Tel: +33-1-5568-5568 Fax: +33-1-5568-5757
South Africa	Circuit Breaker Industries Ltd. Private Bag 2016, ZA-1600 Isando, South Africa	Tel: +27-11-928-2000 Fax: +27-11-392-2354
Hong Kong	Mitsubishi Electric Automation (Hong Kong) Ltd. 10/F, Manulife Tower, 169 Electric Road, North Point, Hong Kong	Tel: +852-2887-8870 Fax: +852-2887-7984
China	Mitsubishi Electric Automation (Shanghai) Ltd. 17/F, ChuangXing Financial Center No.288 West Nanjing Road, Shanghai 200003	Tel: +86-21-2322-3030 Fax: +86-21-2322-3000
Taiwan	Setsuyo Enterprise Co., Ltd. 6F, No.105 Wu-Kung 3rd Rd, Wu-Ku Hsiang, Taipei Husien 248, Taiwan	Tel: +886-2-2299-2499 Fax: +886-2-2299-2509
Korea	Mitsubishi Electric Automation Korea Co., Ltd. 1480-6, Gayang-dong, Gangseo-ku, Seoul 157-200, Korea	Tel: +82-2-3660-9552 Fax: +82-2-3664-8372
Singapore	Mitsubishi Electric Asia Pte, Ltd. 307 Alexandra Road #05-01/02, Mitsubishi Electric Building Singapore 159943	Tel: +65-6470-2460 Fax: +65-6476-7439
Thailand	Mitsubishi Electric Automation (Thailand) Co., Ltd. Bang-Chan Industrial Estate No.111 Soi Serithai 54, T.Kannayao, A.Kannayao, Bangkok 10230 Thailand	Tel: +66-2-517-1326 Fax: +66-2-517-3239
Indonesia	P.T. Autoteknindo Sumber Makmur Muara Karang Selatan, Block A / Utara No.1 Kav. No.11, Kawasan Industri Pergudangan, Jakarta- Utara 14440, P.O.Box 5045 Jakarta11050-Indonesia	Tel: +62-21-663-0833 Fax: +62-21-663-0832
India	Messung Systems Pvt., Ltd. Electronic Sadan NO: III Unit No.15, M.I.D.C. Bhosari, Pune-411026, India	Tel: +91-20-2712-3130 Fax: +91-20-2712-8108
Australia	Mitsubishi Electric Australia Pty. Ltd. 348 Victoria Road, Rydalmere, N.S.W. 2116, Australia	Tel: +61-2-9684-7777 Fax: +61-2-9684-7245

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: TOKYO BUILDING, 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
NAGOYA WORKS: 1-14, YADA-MINAMI 5, HIGASHI-KU, NAGOYA, JAPAN

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