Changes for the Better

MITSUBISHI ELECTRIC

Mitsubishi Graphic Operation Terminal

GRAPHIC OPERATION TERMINAL

GOT1000

The best solutions for your industry needs.
An innovative and highly perfected platform -- the GOT1000 Series.

Jul. 2007 GOT1000 GRAPHIC OPERATION TERMINAL

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).

MELFANS web
MITSUBISHI ELECTRIC FA NETWORK SERVICE ON WORLD WIDE
http://MitsubishiElectric.co.jp/melfansweb/english/

MELSOFT

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

GT15

With various sophisticated functions and a vast lineup,
now is the start of a new movement in the GOT symphony.

GT11

est

GOT1000 GRAPHIC OPERATION TERMINAL

CONTENTS

GRAPHIC OPERATION TERMINAL

GOT1000

The GOT1000 series, originating from and developed for the needs of the industry

The desire to offer a display which meets users' needs has been our theme since the birth of GOT1000 and its development has been continued by constantly adding new functions.
The vast GOT1000 lineup with its new functions continues to advance.
GOT1000 boasts unique and innovative functions such as the backup/restoration function which is the key to shortening downtime, and the operator authentication function which is an effective from of security to work management.
Now with the compact GT10 series models including the 3.7" type micro-GOT, we have a total of 44 models in our lineup.
The GOT is developed based on the idea of usability, taking into account the requests from customers.
Under the slogan "Simply the best!" Mitsubishi Electric aims at a unique brand of display.
Again, we bring you new possibilities.

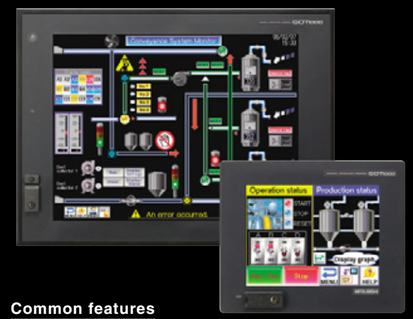
Toward a unique GOT brand

The needs expressed by users will continue to be a central part of the GOT series evolution to the next-generation display. Mitsubishi Electric's aims are summed up by the slogan, "Simply the best!"

A total of 44 GOT1000 models

GRAPHIC OPERATION TERMINAL
GOT 1000

Performance is the pride of GOT1000.



Common features

Performance 1
Beautiful and expressive screens

- TFT65536 full color (GT15)
- STN4096 colors (GT15)
- Monochrome 16 gray scales
- Greatly increased memory capacity

Performance 2
Standard front-mounted USB interface

- Up to 20 times faster data transmission than previous models.
- Front-mounted USB interface improves work efficiency.

Performance 3
Drawing, computing, communication A triad of high-speed response

- Drawing: Equipped with a high-speed drawing chip (GT15)
- Computing: Offers high-speed computing performance
- Communication: Bus connection and RS-232 communication (max. 115.2 kbps)

OPEN!

GRAPHIC OPERATION TERMINAL GOT1000 LINE-UP

GT15 model/GT11 model/GT10 model

A total of 44 GOT1000 models providing user friendliness in 3.7 inch to 15 inch models.

GRAPHIC OPERATION TERMINAL GOT1000

15" type **TFT**(High-brightness, wide viewing angle)
XGA GT1595-XTBA AC type
GT1595-XTBD DC type NEW

Resolution : 1024 × 768
Display colors : 65536 colors

10.4" type **TFT**(High-brightness, wide viewing angle)
VGA GT1575-VTBA AC type
GT1575-VTBD DC type

Resolution : 640 × 480
Display colors : 65536 colors

NEW
12.1" type **TFT**(High-brightness, wide viewing angle)
SVGA GT1585V-STBA AC type
GT1585V-STBD DC type

Resolution : 800 × 600
Display colors : 65536 colors
Video/RGB model

10.4" type **TFT**
VGA GT1575-VNBA AC type
GT1575-VNBD DC type

Resolution : 640 × 480
Display colors : 256 colors

12.1" type **TFT**(High-brightness, wide viewing angle)
SVGA GT1585-STBA AC type
GT1585-STBD DC type

Resolution : 800 × 600
Display colors : 65536 colors

10.4" type **TFT**
VGA GT1572-VNBA AC type
GT1572-VNBD DC type

Resolution : 640 × 480
Display colors : 16 colors

NEW
10.4" type **TFT**(High-brightness, wide viewing angle)
SVGA GT1575V-STBA AC type
GT1575V-STBD DC type

Resolution : 800 × 600
Display colors : 65536 colors
Video/RGB model

8.4" type **TFT**(High-brightness, wide viewing angle)
VGA GT1565-VTBA AC type
GT1565-VTBD DC type

Resolution : 640 × 480
Display colors : 65536 colors

10.4" type **TFT**(High-brightness, wide viewing angle)
SVGA GT1575-STBA AC type
GT1575-STBD DC type

Resolution : 800 × 600
Display colors : 65536 colors

8.4" type **TFT**
VGA GT1562-VNBA AC type
GT1562-VNBD DC type

Resolution : 640 × 480
Display colors : 16 colors

GT15 Functions bearing this mark are available only on the GT15 series models. All other functions are supported by both the GT11 and GT15 series.

Full-spec models accommodate a wide range of applications in stand-alone or network environments

Full-spec models

GT15

The upper model of the GOT1000 series aiming at the best performance for the next-generation HMI.

Various models are available to meet the application needs.

NEW
5.7" type **TFT**(High-brightness, wide viewing angle)
VGA GT1555-VTBD DC type

Resolution : 640 × 480
Display colors : 65536 colors

NEW
5.7" type **TFT**(High-brightness, wide viewing angle)
QVGA GT1555-QTBD DC type

Resolution : 320 × 240
Display colors : 65536 colors

NEW
5.7" type **STN**
QVGA GT1555-QSBD DC type

Resolution : 320 × 240
Display colors : 4096 colors

NEW
5.7" type **STN**
QVGA GT1550-QLBD DC type

Resolution : 320 × 240
Display colors : 16 gray scales

Standard models offer a full array of basic functions for stand-alone use

Standard models

GT11

A convenient, standard model with usability as a design concept.

Even beginners can utilize the brilliant performance of the standard series.

NEW
5.7" type **TFT**
QVGA GT1155-QTBDQ DC type Q bus connection
GT1155-QTBDA DC type A bus connection

Resolution : 320 × 240
Display colors : 256 colors

5.7" type **STN**
QVGA GT1155-QSBD DC type
GT1155-QSBDQ DC type Q bus connection NEW
GT1155-QSBDA DC type A bus connection NEW

Resolution : 320 × 240
Display colors : 256 colors

5.7" type **STN**
QVGA GT1150-QLBD DC type
GT1150-QLBDQ DC type Q bus connection NEW
GT1150-QLBDA DC type A bus connection NEW

Resolution : 320 × 240
Display colors : 16 gray scales

5.7" type **Handy GOT/STN**
QVGA GT1155HS-QSBD DC type

Resolution : 320 × 240
Display colors : 256 colors

5.7" type **Handy GOT/STN**
QVGA GT1150HS-QLBD DC type

Resolution : 320 × 240
Display colors : 16 gray scales

Compact models include all the basic functions required for a HMI display

Compact models

GT10

A compact model which meets customers' needs.

The usability of the GOT1000 series in its simplest design.

NEW
4.5" type **STN**
GT1030-LBD 24 VDC type RS-422 connection
GT1030-LBD2 24 VDC type RS-232 connection

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

NEW
4.5" type **STN**
GT1030-LBDW 24 VDC type RS-422 connection
GT1030-LBDW2 24 VDC type RS-232 connection

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

NEW
3.7" type **STN**
GT1020-LBD 24 VDC type RS-422 connection
GT1020-LBD2 24 VDC type RS-232 connection
GT1020-LBL 5 VDC type RS-422 connection

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

NEW
3.7" type **STN**
GT1020-LBDW 24 VDC type RS-422 connection
GT1020-LBDW2 24 VDC type RS-232 connection
GT1020-LBLW 5 VDC type RS-422 connection

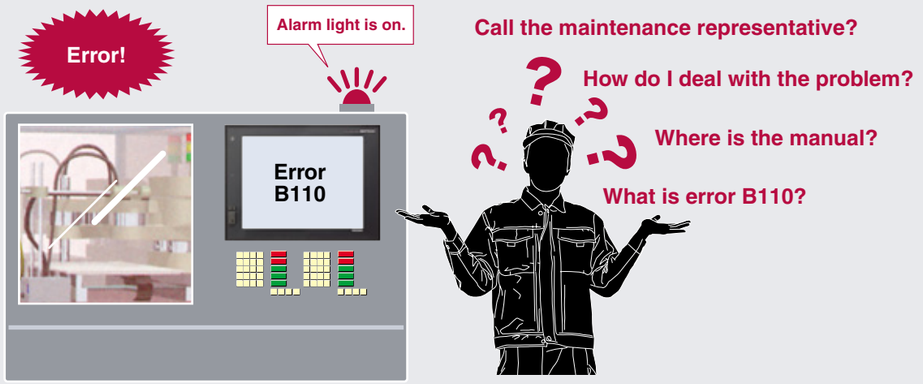
Resolution : 160 × 64
Display colors : Monochrome (black/white)
(Tricolor LED (white/pink/red))

* : For the detailed functions of the GT10 series, see pages 43 - 45.

CASE 1

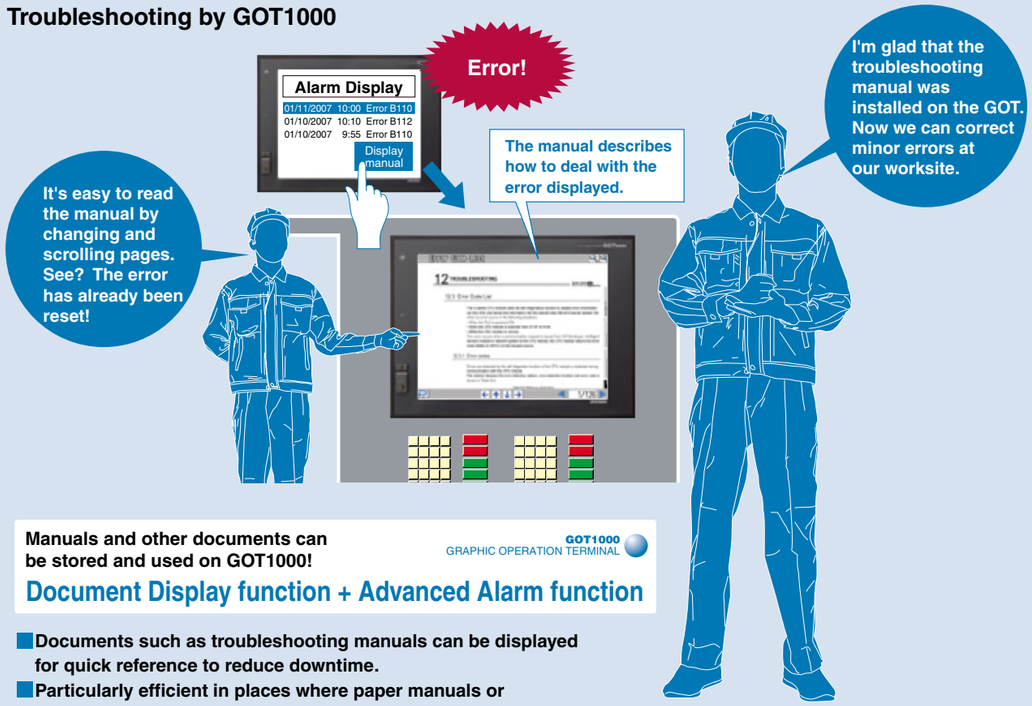
Don't panic when encountering unexpected errors — Quick troubleshooting at the worksite

Before



GOT Solution①

Troubleshooting by GOT1000



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

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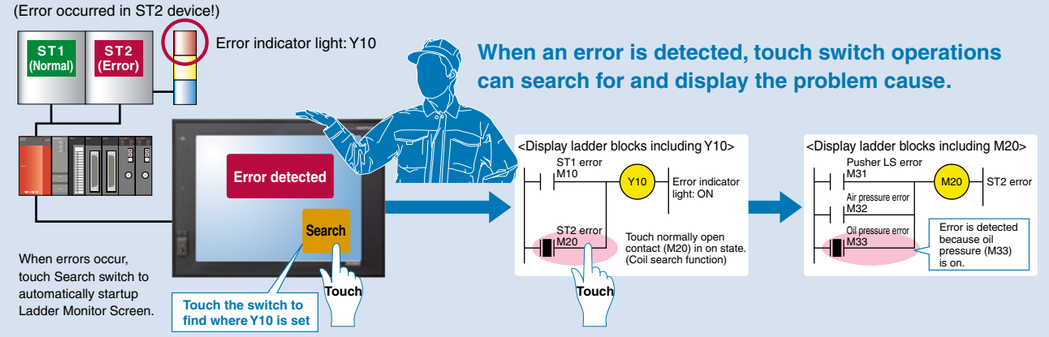
Document Display function + Advanced Alarm function

- 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.
- Various types of general-purpose documents can be displayed. (doc, xls, ppt, pdf, jpg and bmp)

<For more details, see pages 34 to 38 of this catalog.>

GOT Solution②

Investigate the problem cause at the production site



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

GOT1000 GRAPHIC OPERATION TERMINAL

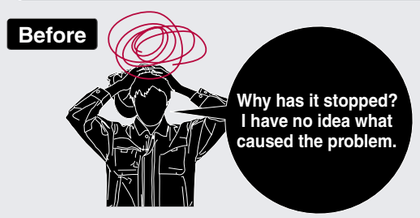
One-Touch Ladder Jump function

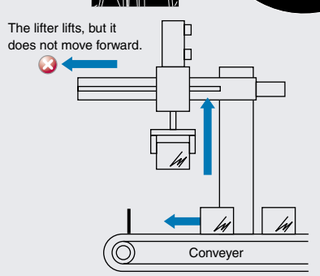
- Just touch the operation flow diagram on the GOT, which will show you the root cause of the problem. There is no need to use personal computers or ladder programs.
- Using general purpose PLC error indication programs and detection programs makes developing new search programs and screens unnecessary.

<For more details, see page 40 of this catalog.>

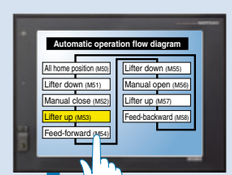
(Application case) When error messages are not displayed

Before

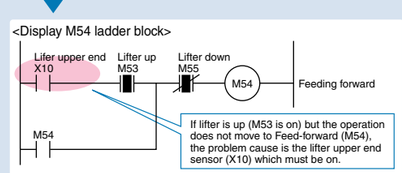




GOT Solution



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

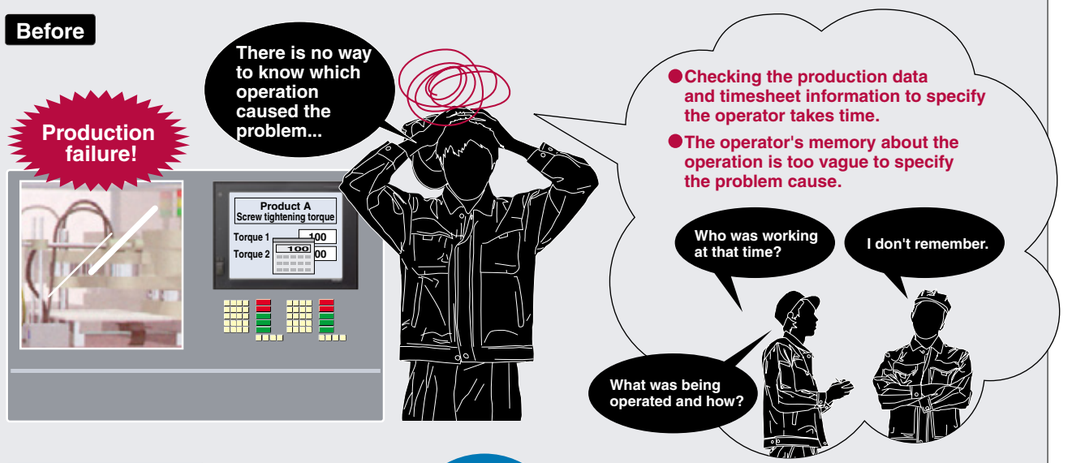


Operation halts due to unknown reasons at an unknown location – the problem cause can be quickly found by tracing operations on the GOT.

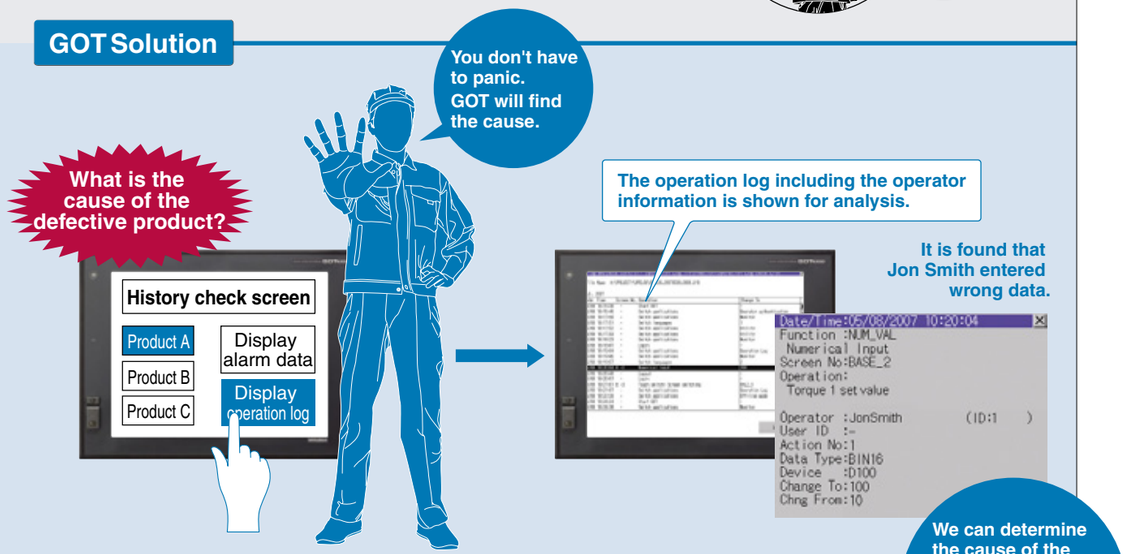
CASE 2

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.
- As long as the real cause is found, measures can be taken to prevent a recurrence.

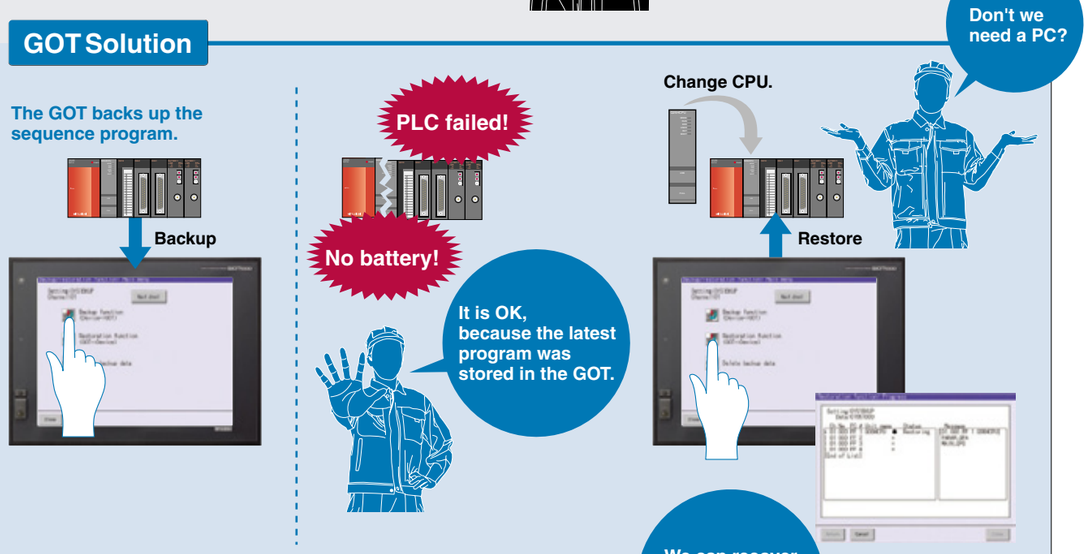
<For more details, see page 37 of this catalog.>

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

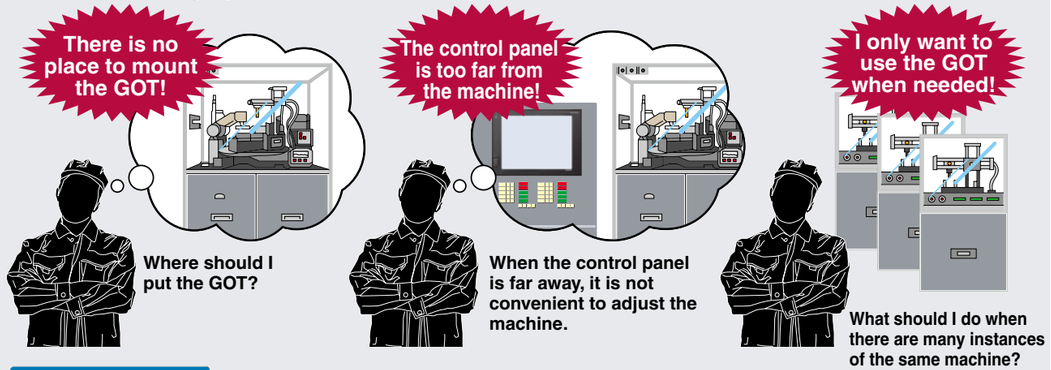
- Sequence programs, parameters and comments can be read and stored by the GOT. (Backup function)
- Easily write the sequence programs saved in the GOT to a new PLC. (Restoration function)
- If an error occurs due to no battery and program changes, users can quickly restore the system by using previously backed up data.

<For more details, see page 39 of this catalog.>

CASE 4

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

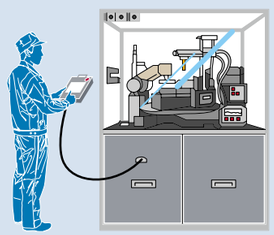
Before In machine tool manufacturing, the position and layout of the operation panel for easy operation have been a problem.



GOT Solution

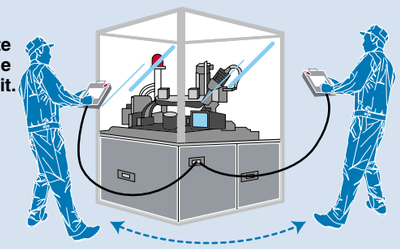
Portable and wearable Handy terminals can be used in many ways.

Limitless installation possibilities



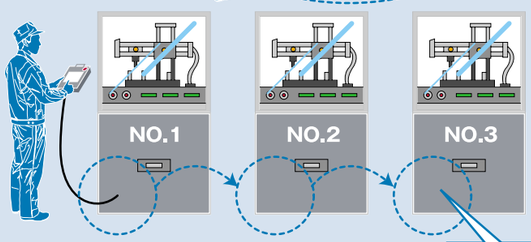
Operators can connect the GOT only when needed.

Operable from every direction



Initialize and adjust the operations easily.

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 every direction of the machine.

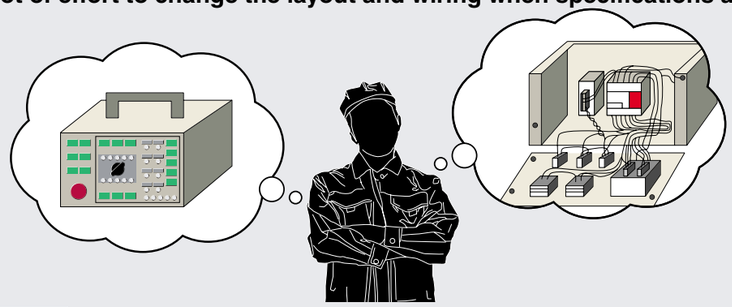
Note: Direct disconnection of the handy unit will cause the emergency stop switch to activate unless a design such as configuring an external parallel circuit is implemented. Refer to GOT Handy manual for details.

<For more details of functions, see page 42 of this catalog.>

CASE 5

Extremely compact size expands the effective use of the GOT1000 series

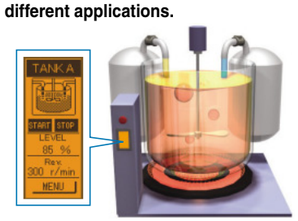
Before Hardware switches and lamps take up space on the control panel, and it takes a lot of effort to change the layout and wiring when specifications are changed.



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.



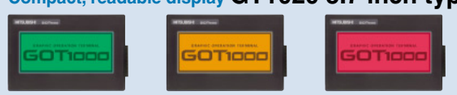
For simple and small applications, GOT1000 is just right.

GOT1000 GRAPHIC OPERATION TERMINAL

GT10 series

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

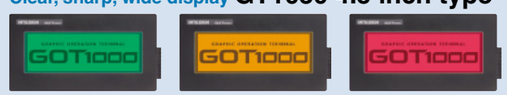
Compact, readable display **GT1020 3.7 inch type**



green orange red 3-color display model

white pink red 3-color display model

Clear, sharp, wide display **GT1030 4.5 inch type**



green orange red 3-color display model

white pink red 3-color display model

<For more details of functions, see pages 43 to 45 of this catalog.>

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.

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

For designers

- Comment groups
- Automatic length adjustment of comment group labels
- Comment groups for switch and lamp label
- Multilingual support
- Script function
- Vastly increased memory capacity
- Component layering (Layer function)
- Transparent bitmap figures
- CSV/Unicode text file conversion
- Advanced recipe function
- Wide selection of connectable FA devices and peripherals
- External I/O function
- Sound Output function
- CF card unit/CF card extension unit
- For Video/RGB
- Multi-channel function
- Gateway function
- MES interface function
- GT Designer2 Version2
- GT Converter2 Version2
- GT Simulator2 Version2

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

For operators

- Drawing, computing, communication; a trio of high-speed response functions
- Dialogue window function
- Display in different world languages

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

For initial startup & adjustment operators

- Equipped with front USB interface
- FA transparent function
- High-speed downloading/ uploading via Ethernet
- Standard-item RS-232 interface
- Standard-item CF card interface

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

For maintenance personnel

- Advanced alarm
- Logging function
- Historical trend graph
- Operator authentication function
- Operation log function
- Document display function
- Color-coded front face LED
- Maintenance time notification function
- Backup/restoration function
- List editor for A/List editor for FX
- Ladder monitor function
- System monitor function
- Q series motion monitor function
- Intelligent unit monitor function
- Network monitor function
- Servo amplifier monitor function
- CNC monitor function

est

GRAPHIC OPERATION TERMINAL
GOT1000

Greatly improved comment input, language selection and screen drawing efficiency

For designers

Efficient input of extensive comment data

GOT1000 GRAPHIC OPERATION TERMINAL

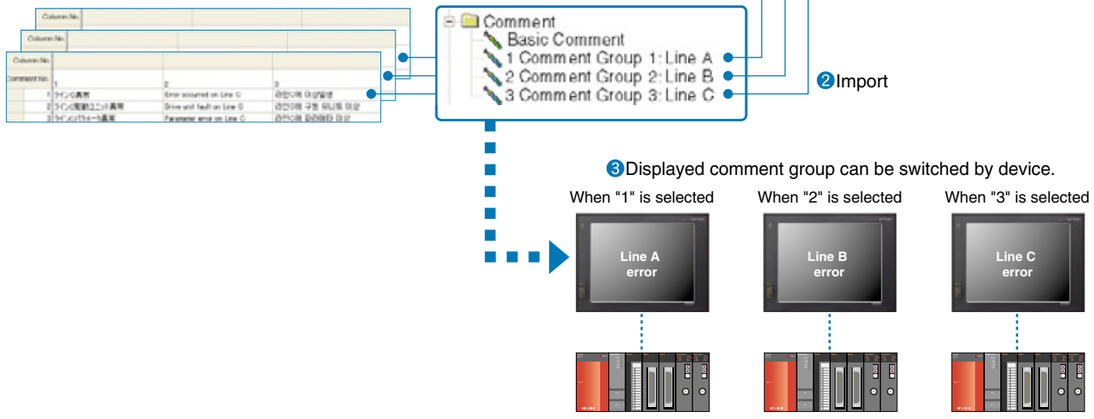
Comment groups

- 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.



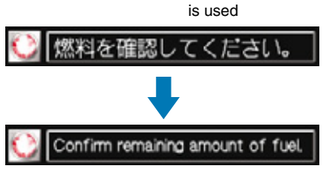
No need to adjust character string length

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

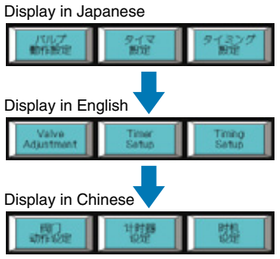
GOT1000 GRAPHIC OPERATION TERMINAL

Comment groups for switch and lamp labels

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

<Supported objects> • Touch switches, lamps

Touch switches and lamps now support comment groups, which are very useful for language switching.



Easy creation of multilingual screens

GOT1000 GRAPHIC OPERATION TERMINAL

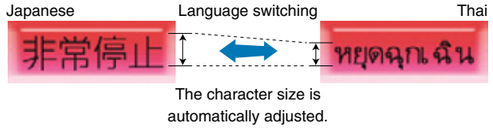
Multilingual support

- Different language comments can be created for each comment group column to switch the display language.
- Up to 10 columns can be created for 1 comment group.
- Comment group comments can be created freely for applications, as well as for different languages.

✻: For details, see "Comment group" section.

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.



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.

For better work efficiency and enhanced customization functions

GOT1000 GRAPHIC OPERATION TERMINAL

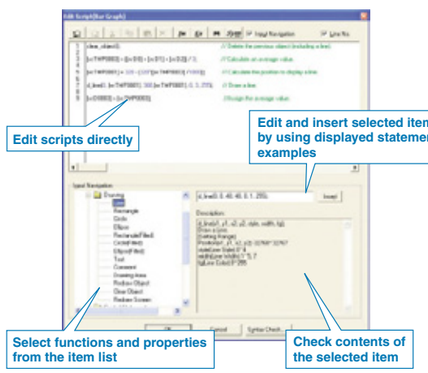
Script function

Project script/screen script

- Controlling GOT display by using GOT scripts can reduce the load on PLCs (PLC CPU, microcomputer, etc.) dramatically.

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

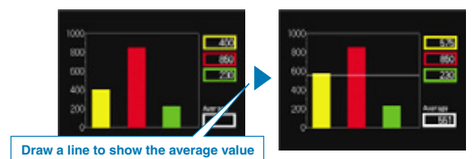


Object script (GT15 only)

- 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.

Now the optional function board (GT15-FNB) is not required. For more details, see Notes for Use on page 59.

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

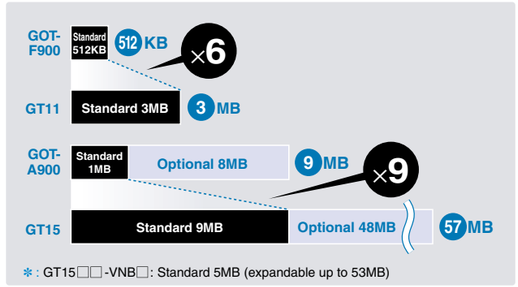
Designing without memory capacity limitations

GOT1000 GRAPHIC OPERATION TERMINAL

Vastly increased memory capacity

- GT15 memory capacity can be optionally expanded up to 57MB (optional function board with add-on memory + CF card).
- GT11 has 3MB memory standard.
- BMP and JPEG* images can be used to create easy-to-understand screens with minimal memory usage.

*: JPEG format is supported only by GT15.



*: GT15□□-VNB□: Standard 5MB (expandable up to 53MB)

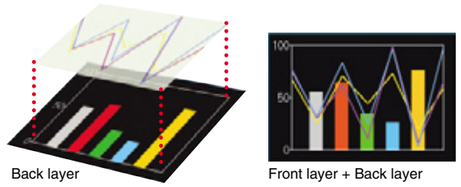
Increased flexibility in designing screens

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

GT 15

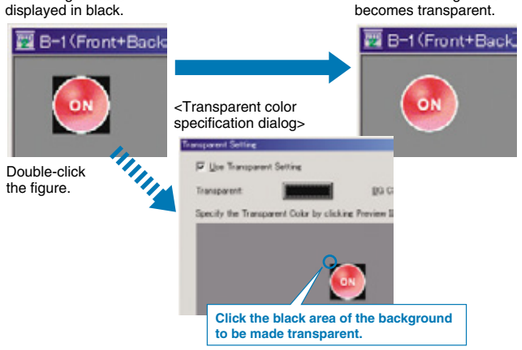
GOT1000 GRAPHIC OPERATION TERMINAL

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.



Easy check and analysis of resource data

GT 15

GOT1000 GRAPHIC OPERATION TERMINAL

CSV/Unicode text file conversion

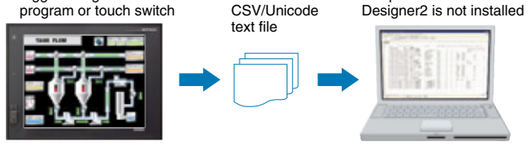
- Binary resource data files can be converted into CSV or Unicode format text files by external control using a trigger device.

<Supported resource data>
- Advanced alarm log files
- Advanced recipe data files
- Operation log files

①Turn on conversion trigger using the PLC program or touch switch

②Convert BIN file into CSV/Unicode text file

③Check data on a personal computer on which GT Designer2 is not installed



Using the Gateway FTP function enables you to check alarms and other GOT or system information with a personal computer, on which GT Designer2 is not installed, from remote locations.

Simplify complicated production setup with the GOT

For designers

Simple process of creating complicated recipe data

GT 15

GOT1000 GRAPHIC OPERATION TERMINAL

Advanced recipe function

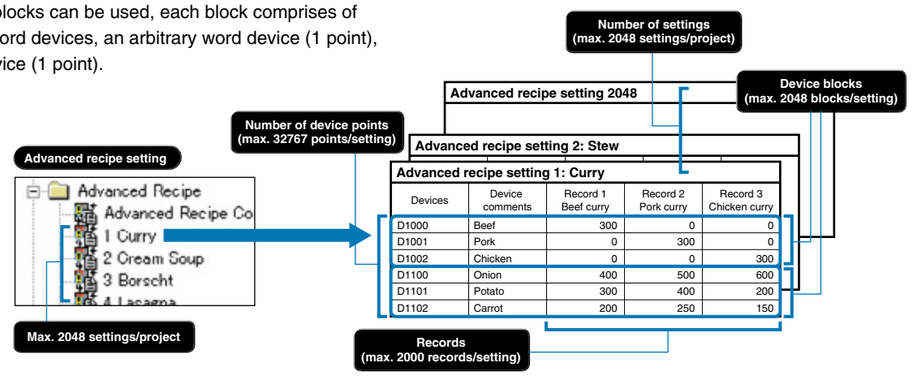
This function allows material combination data and processing conditions data (device values) to be held in the GOT, with only the required data being written to and read from the PLC.

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

- Greatly expanded capacity permits up to 2048 recipe files and 32767 device points.
- Up to 2000 types of device values can be handled by a single advanced recipe setting file. Version upgrade

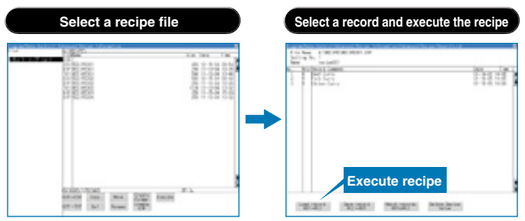
Flexible recipe data can now be created.

- 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
- Up to 2048 blocks can be used, each block comprises of sequential word devices, an arbitrary word device (1 point), and a bit device (1 point).
- Because devices also permit bit and word combinations and arbitrary device settings, there is no need to centralize the sequential devices used, thereby economizing 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



Easy handling of recipe data at 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 change, record write/read/consistency check.



Advanced recipe information screen

Advanced recipe record list screen

Now the optional function board (GT15-FNB) is not required.
For more details, see Notes for Use on page 59.

*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 a CSV file or a Unicode text file by using GT Designer2 or the GOT's utility. 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.

Connectability to various types of FA equipment and peripheral devices including support for sound output and external I/O

For designers

Continuously expanding connectable devices and models

GOT1000 GRAPHIC OPERATION TERMINAL

Wide selection of connectable FA devices and peripherals

PLCs

- Expanded manufacturers and models of PLCs NEW
  - Matsushita Electric Works : FP-X
  - Allen-Bradley (Rockwell) : ControlLogix series
    CompactLogix series
    FlexLogix series
- Allen Bradley (Rockwell) : EtherNet/IP connection (PCCC protocol) to ControlLogix series and CompactLogix series will be supported. Coming soon

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

- Expanded manufacturers and models of temperature controllers NEW
  - CHINO Corporation
- Data logging, parameter setting, and alarm display for temperature controllers are possible.

✻ : Connectable models and usable functions vary depend on the GOT main unit. For more details, see List of Connectable Models (page 48), Notes for Use (page 59) and Functions List (page 62).

Mitsubishi CNCs

- Monitoring and writing of devices, which are equivalent to MELSEC-Q4A, are supported.
- CNC parameters can be specified by using the CNC monitor function.

✻ : For more details on the CNC monitor function, see CNC monitor function on page 41.

Mitsubishi servo amplifiers

- MR-J2S-□CP point tables can be edited. Connecting the GOT to servo amplifier allows easy editing of the positioning parameters.
- Users can create parameter setting, alarm display, and test operation screens. There is no need to create screens to use the servo amplifier monitor function.

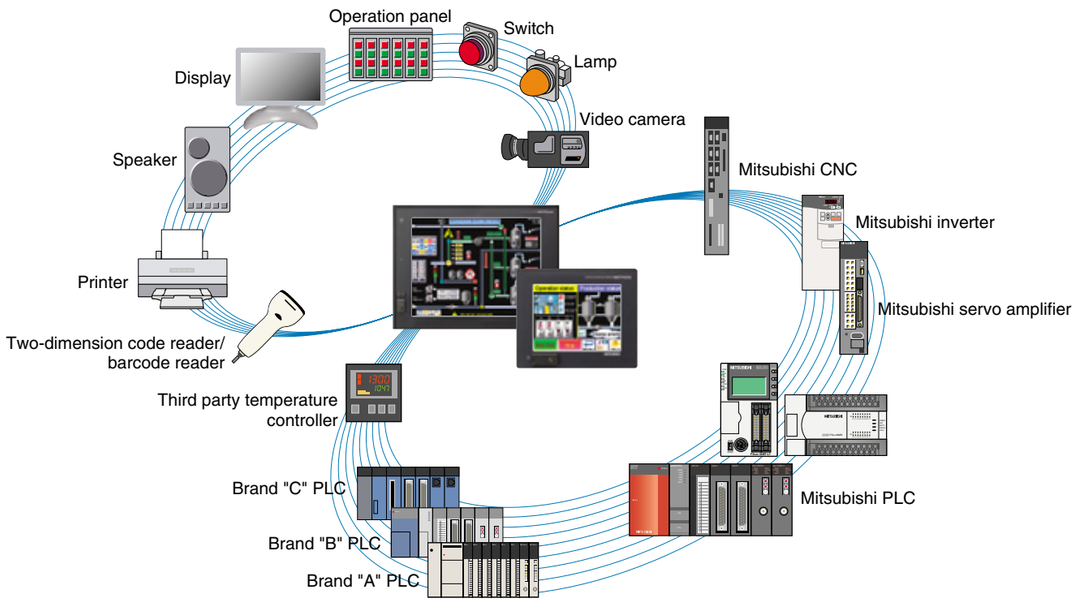
✻ : For more details on the servo amplifier monitor function, see Servo amplifier monitor function on page 41.

Mitsubishi inverters

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

Other peripheral devices

- External devices (operation panels, switches, lamps, and relays) NEW
- Speakers NEW
- 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



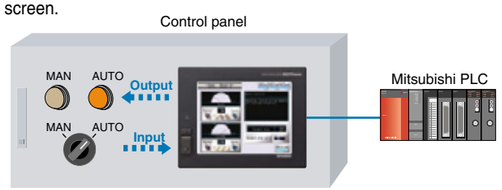
Direct connection to I/O devices simplifies your system

NEW 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.



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

[Required device] • External I/O unit (GT15-DIO)

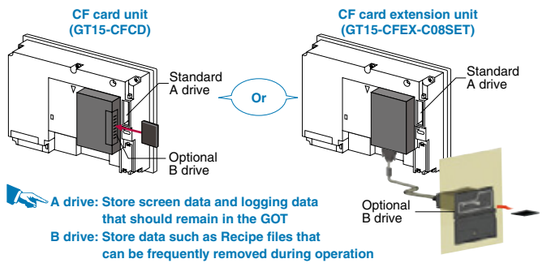
Additional CF card unit for more convenient use

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

- 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.

[Required device] • CF card unit (GT15-CFCD) or CF card extension unit (GT15-CFEX-C08SET)

✻ : CF card unit and CF card extension unit cannot be used together.

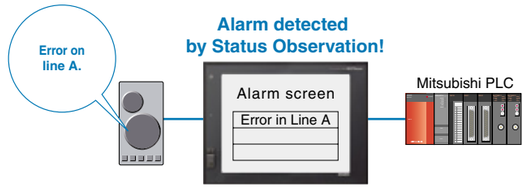
Sound notification of alarms

NEW 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.



✻ : It is recommended to use a speaker with a built-in amplifier. (Straight cable with stereo mini jack)

[Required device] • Sound output unit (GT15-SOUT)

High-quality images with 65536 colors provide precise detail

NEW GT15

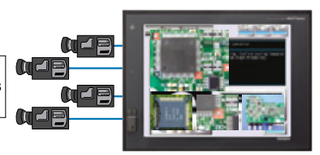
GOT1000 GRAPHIC OPERATION TERMINAL

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 65536 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%)

[Required device] • Video input unit (GT15V-75V4) or video/RGB input unit (GT15V-75V4R1)



Display a personal computer screen on the GOT <RGB input>

- PC images of either SVGA (800 × 600 dots) or VGA (640 × 480 dots) can be displayed at the same time as the GOT monitor screen.

[Required device] • RGB input module (GT15V-75R1) or video/RGB input module (GT15V-75V4R1)

Display the GOT screen on a display <RGB output>

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

[Required device] • RGB output unit (GT15V-75ROUT)

✻ : For GT1585V and GT1575V only. 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.

Monitor, collect, and archive data with the GOT

For designers

Central storage of FA device information on a single GOT terminal

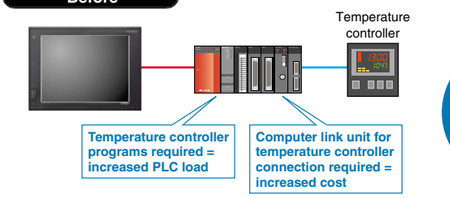
GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Multi-channel function

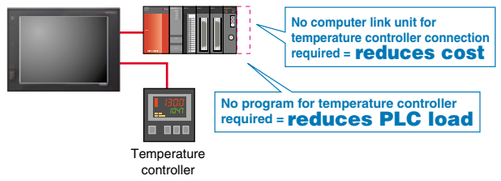
- Monitor up to 4 channels of FA devices (e.g. PLCs, servos, inverters, and temperature controllers).
- Monitor all FA devices on a single screen on the GOT. The monitor screen can be flexibly designed.

Before



Customers' demand: Easy monitoring of temperature controller data from the GOT

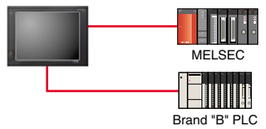
With multi-channel function



[Required device] • Optional function board (GT15-QFNB (□M) or GT15-MESB48M)
For more details, see Notes for Use on page 59.

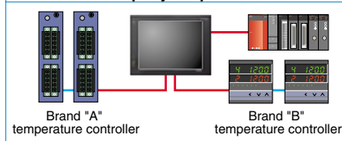
Examples of using the multi-channel function

Third party PLCs



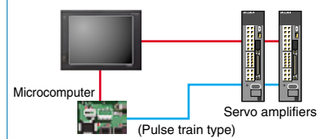
Easy data exchange between PLCs

MELSEC + Third party temperature controllers



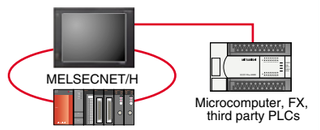
Monitoring of third party devices

MELSERVO + Microcomputer



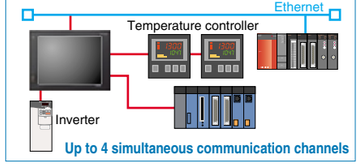
Central management of alarms and parameters

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



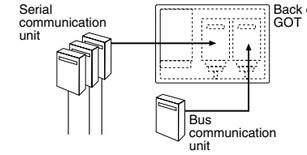
Stand-alone devices can be connected to the network

Third party PLCs + temperature controllers + inverters



Up to 4 simultaneous communication channels

Example of communication unit combinations



✻ : 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 on page 59.

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

GT15

GOT1000 GRAPHIC OPERATION TERMINAL

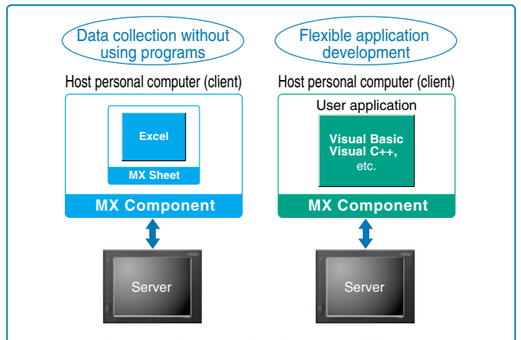
Gateway function

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).

2 Monitor other GOTs from a GOT (client function)

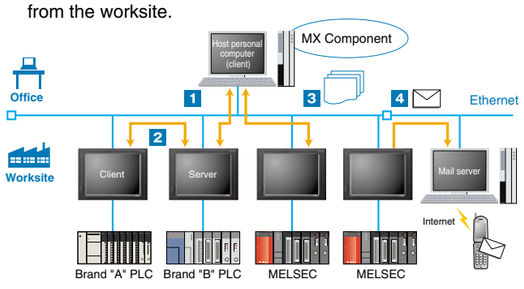
- A GOT (client) indirectly reads/writes device values of equipment monitored by the GOT (server).
- The client function can also be used to indirectly read/write device values of PLC CPUs other than the one to which the GOT (client) is connected.
- Communication is possible between GOT1000 and GOT-A900.

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.



[Required devices] • Ethernet communication unit (GT15-J71E-100) • Communication unit for connection between the GOT and the connected equipment
Now the optional function board (GT15-FNB) is not required. For more details, see Notes for Use on page 59.

Database linkage supports enhances productivity at your worksite

NEW GT15

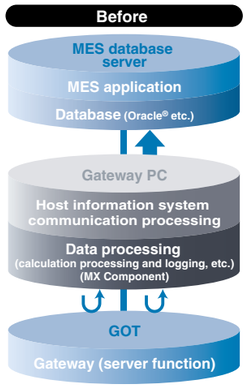
GOT1000 GRAPHIC OPERATION TERMINAL

MES interface function

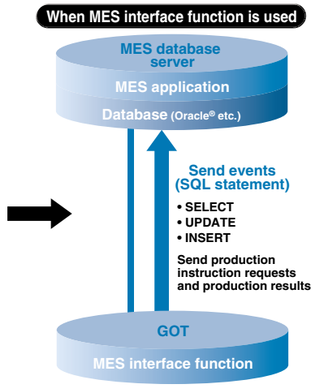
The GOT transmits data from connected FA devices to the server personal computer database via SQL statements.

- 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 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.

Before



When MES interface function is used



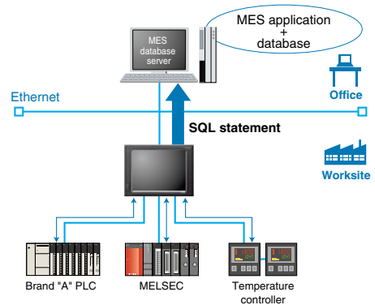
MES interface function

- DB Interface function
  (Tag function, trigger buffering function, trigger monitoring function, SQL sentence transmission function, calculation processing function, program execution function, and DB buffering function)
- SNTP time synchronization function
- Diagnosis function
- DB server function
  (ODBC connection function, connection setting function, and log output function)

Connectable database

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

<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.

[Required devices] • Optional function board (GT15-MESB48M) • Ethernet communication unit (GT15-J71E71-100) • Communication unit to connect the GOT and the device to be used
• A personal computer with screen resolution 1024 × 768 or higher for configuration is recommended.
For more details, see Notes for Use on page 59.

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*

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

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.

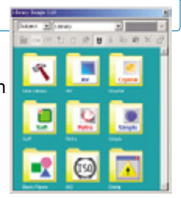
*: "Category" refers to objects or figures that have been grouped according to purpose.

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.

Image display of registered components

Library image list

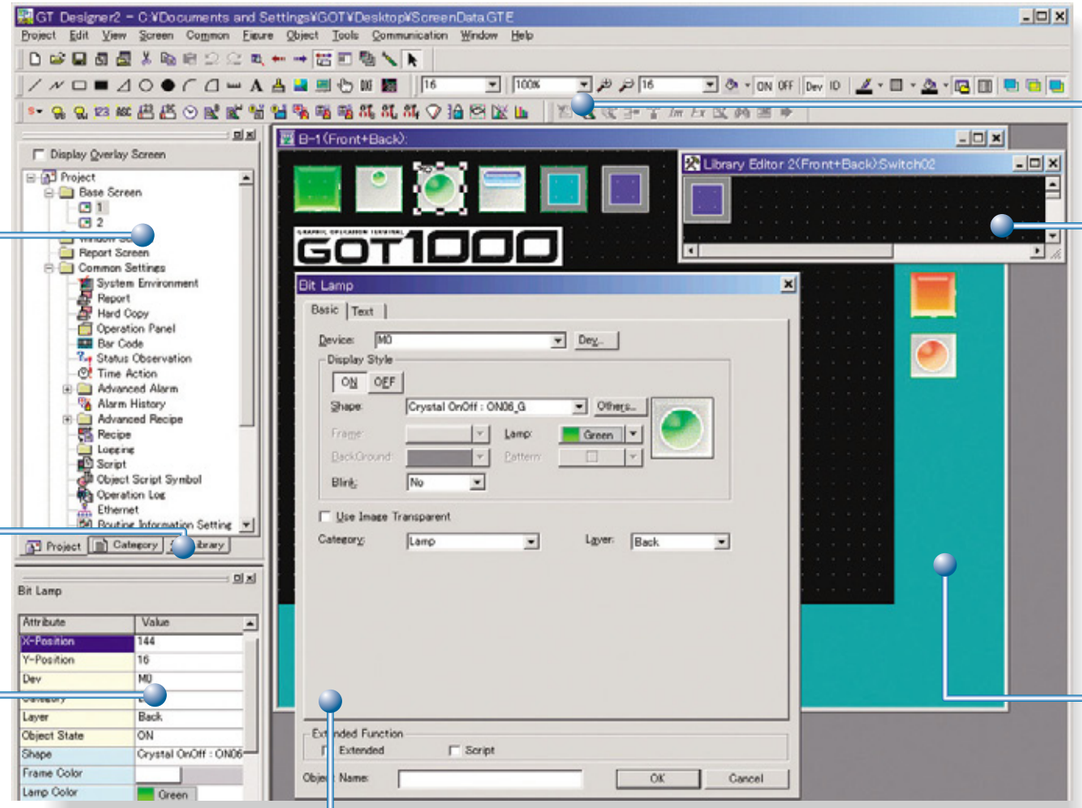


- Registered components can be shown by image color, making it easy to find the component to be used. NEW
- Designing screens is made easy by selecting components from the image list and putting them on the drawing screen.

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 same-type objects and figures can be selected, and their color and character size can be adjusted all at once.



Object & figure setting screen

Dialog box

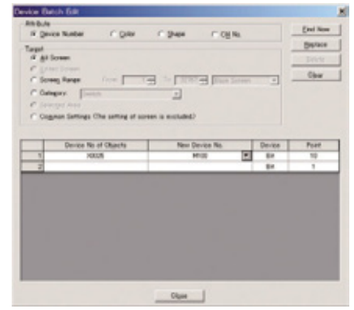
- The attributes screen is displayed by double-clicking the object or figure.
- Figure changes are immediately reflected onscreen. This allows work to be performed while checking the onscreen results, thereby simplifying the process and reducing setting errors.

*: This is also possible from the Property Sheet.

Conversion of multiple objects and figures all at once

Batch conversion

- Device numbers, objects, figure colors, and lamp and touch switch figures can be converted all at once.
- 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 at once.



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.

Smoother screen design

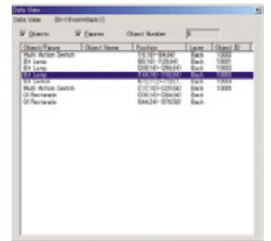
Temporary area

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

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.



*: Compared to Mitsubishi Electric's GT Designer.

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 screen by using high-quality parts.

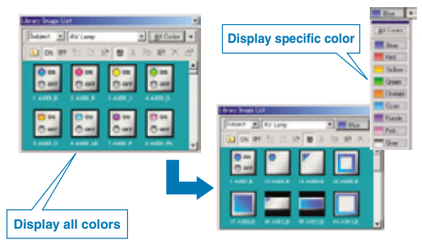
A variety of colors and easy-to-use library

NEW

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.



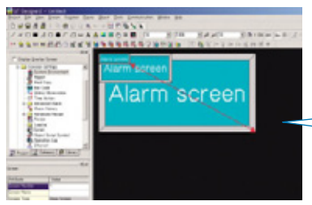
Convenient when converting different screen size data

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



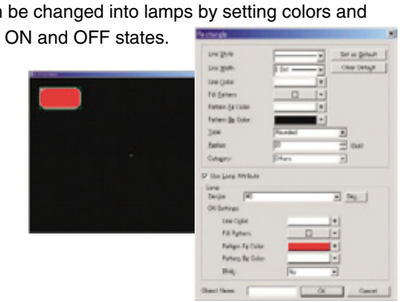
Easily create lamps from figures

NEW

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.
- 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. Thai and Chinese (Simplified and Traditional) are available as well as Japanese.

Stroke font

Thai

หยดฉกฉิน

Chinese (Simplified Chinese)

异常发生

Chinese (Traditional Chinese)

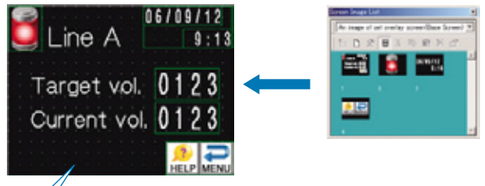
異常發生

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.



Batch change of objects and figure sizes

NEW

GOT1000 GRAPHIC OPERATION TERMINAL

Multiple object enlargement/reduction

- Multiple objects and figures can be enlarged or reduced at once.
- This tool is useful for adjusting the size of components such as numerical keypads registered in the library and replacing the screen data with that from a different screen size.

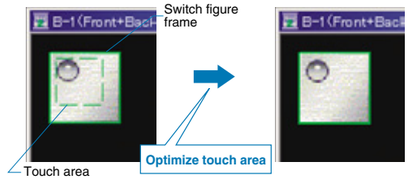
Optimized touch area of switches

NEW

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.



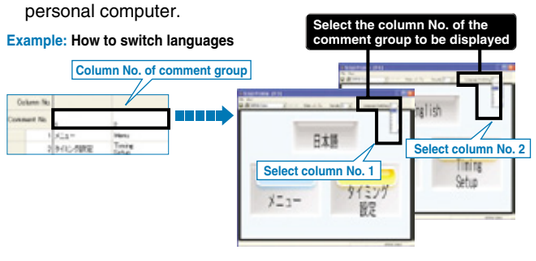
Easy confirmation of screen display

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

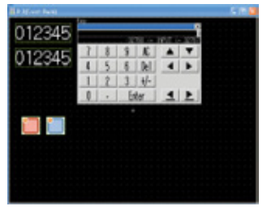


Display of actual GOT screen

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, and appearance etc., to be checked.

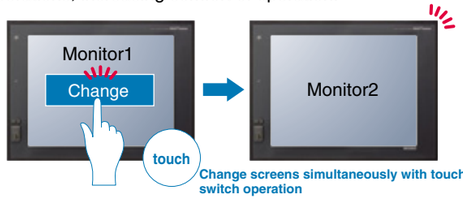


Enhanced functionality including F900 compatible functions (ex. Synchronized screen change)

GOT1000 GRAPHIC OPERATION TERMINAL

Complete conversion of GOT-F900 series data

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



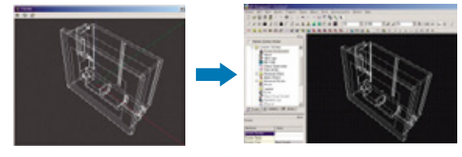
- Auto-repeat function that runs on specified intervals.

Enlarge and rotate CAD data in dedicated screen

GOT1000 GRAPHIC OPERATION TERMINAL

3D CAD data processing

- Read and paste IGES format graphic data onto a screen.



Adjust the angle and size of the CAD data in the dedicated preview screen, then paste it onto a screen.

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

MELSOFT GT Designer2 Version2

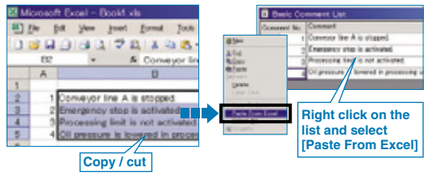
For designers

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.

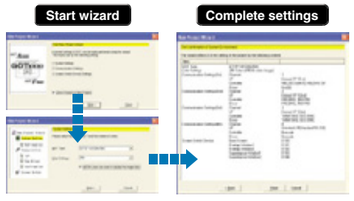


User-friendly setting procedure puts even beginners at ease

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
  GOT900 project data can be used with the GOT1000.
- GOT800 → GOT1000 compatibility
  GOT800 project data can be converted into data for the GOT1000 with GT Converter2.

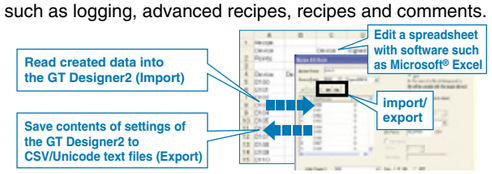
✻ : Backward compatibility does not extend to certain data and functions.

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

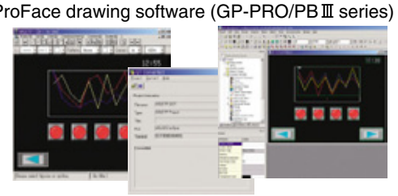
GOT1000 GRAPHIC OPERATION TERMINAL

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.

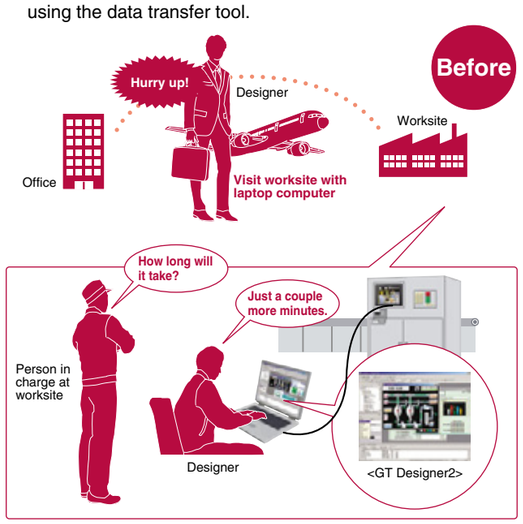
Fast and simple data transfer tool considerably improves work efficiency

GOT1000 GRAPHIC OPERATION TERMINAL

Data transfer tool

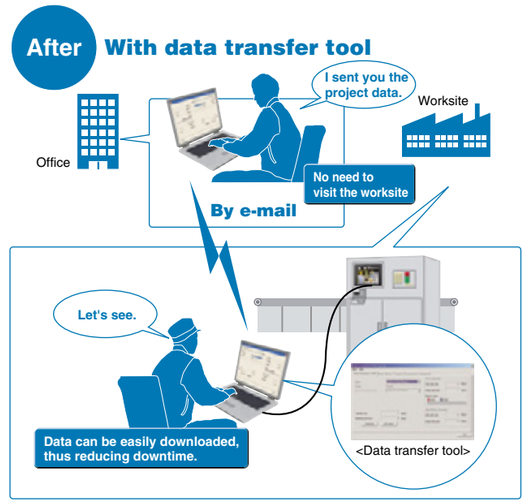
The data transfer tool, dedicated for project data upload/ download, is included with GT Works2 and GT Designer2.

- Even if screen design software is not installed on your computer, GOT project data can be uploaded/downloaded using the data transfer tool.



- The project data can be easily uploaded and downloaded at the worksite where there is no screen design software, by operators without special training. This means that designers do not have to visit worksites to make program changes.

Supported GOT model	GOT1000, GOT-A900, GOT-F900, GOT800
Supported Windows OS	Windows® XP, Windows® 2000



A simple operation to create clear, sharp document images

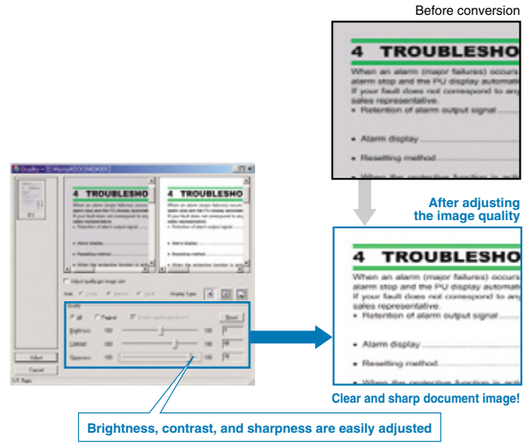
GOT1000 GRAPHIC OPERATION TERMINAL

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 the document display function on page 38.
✻ : 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

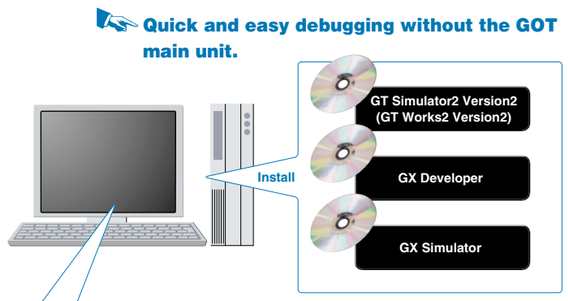
GT Simulator2 Version2

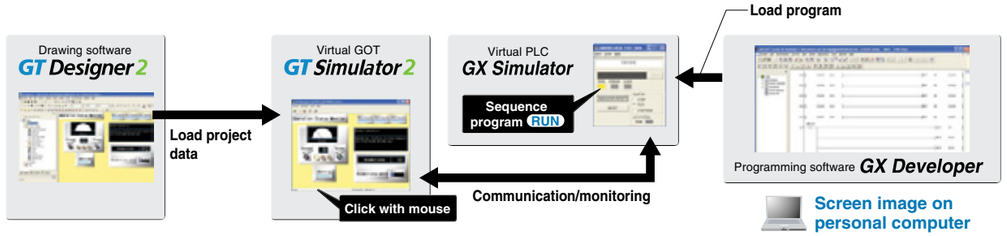
GT Simulator2 helps designers debug projects by simulating GOT operations on a personal computer.

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.
- The GT Simulator2 screen debugging function permits screen editing in GT Designer2 with the results immediately verifiable in GT Simulater2, 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.

Quick and easy debugging without the GOT main unit.

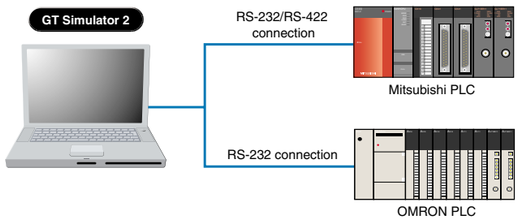




Debugging is possible by connection with a PLC, without actual GOT operation required

- 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



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 triad of high-speed response functions

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

High-speed drawing — **Equipped with an ultra high-speed graphics chip (GT15 only)**

- High-speed drawing of figures and characters is made possible by using the specially developed graphics chip specifically for the GOT1000 series.
- Sharp and quick drawing of complex, layered component screens, and detailed photographic data in 65536 colors.

High-speed computing — **GT11: Equipped with 64-bit RISC processor**
GT15: Equipped with 64-bit super-scalar RISC processor

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

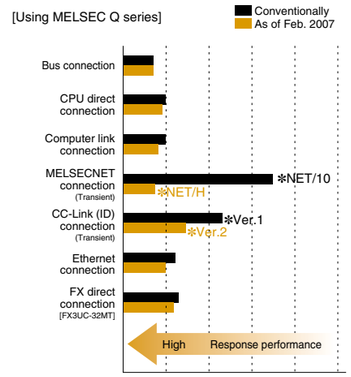
High-speed communication

- Greatly improved response performance.
- High-speed RS-232 communication (max. 115.2 kbps).
- GT15 high-speed communication is possible by bus connection. GT11 high-speed communication is now also possible by bus connection. NEW
- High-speed communication is possible for connections with both Mitsubishi and third party PLCs.

✻ : For connectable PLC models, see the List of connectable models, starting on page 48.

Response comparison with conventional GOT series

GT15 response performance comparison



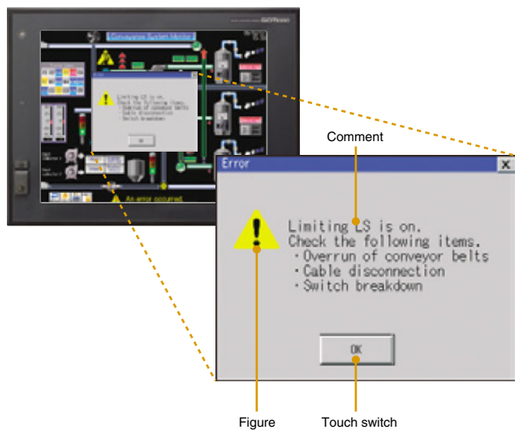
The monitor screen includes about 250 points of word devices.

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. Touch switches, numeric displays, comment displays and figures can also be utilized.



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.
- Correctly display Simplified Chinese and Traditional Chinese characters✻.
- Allows the creation of elaborate, high-quality screens that are both attractive and easy to understand.

- 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 GT15. Now the optional function board (GT15-FNB) is not required. For more details, see Notes for Use on page 59.

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

For initial startup & adjustment operators

Easy data transmission without opening the cabinet

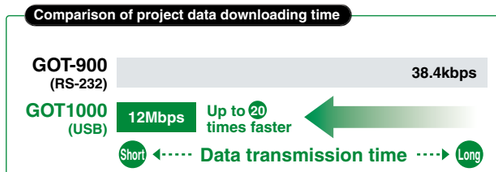
GOT1000 GRAPHIC OPERATION TERMINAL

Equipped with front USB interface

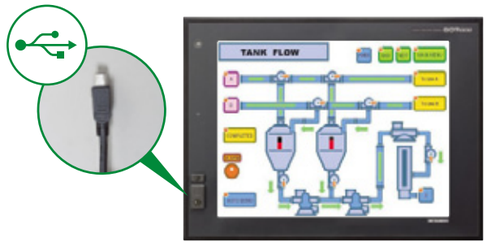
- The front USB interface allows a programming cable to be connected without having to open the cabinet.
- Data transmission using the USB interface greatly reduces the time required for startup and adjustment.
- When secured by the provided screw, the USB port cover complies with the IP67f standard*. (The screw can easily be tightened with a coin.)

*: Compliance cannot be guaranteed in all customer environments.

Comparison of project data downloading time



*: To connect the GOT to a personal computer, use the dedicated USB cable. For more details, see Product List on page 68.



With USB cable

Standard item IP67f
(with IP67f-rated port cover installed)

Sequence program and parameters can easily be modified at the worksite

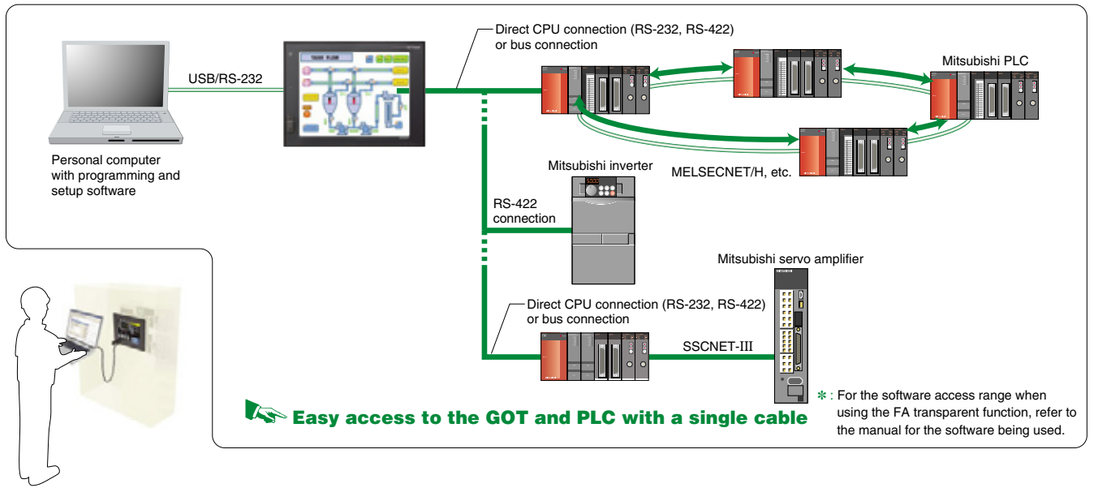
GOT1000 GRAPHIC OPERATION TERMINAL

FA transparent function

- Sequence program debugging, startup, and adjustment can be performed via the GOT's front USB interface.
- There is no need to open the cabinet and change cable connections. (Operation is also possible via the RS-232 interface.)
- When multiple FA devices are connected, the communication target can be changed on the GOT main unit using the multi-channel function.

- 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 CPU (Q12PHCPU/Q25PHCPU)
    Redundant CPU (Q12PRHCPU/Q25PRHCPU)
  - MT Developer
    Motion controller (Q series)
  - MR Configurator
    Q172HCPU(-T)/Q173HCPU(-T)+MR-J3-□B (SSCNETIII)
  - FR Configurator
    FREQROL A700/F700

*: 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.

Project data can be maintained from a remote location

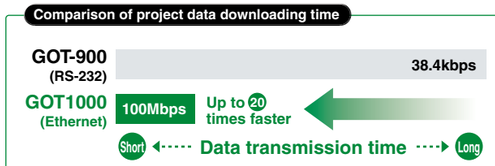
GT 15

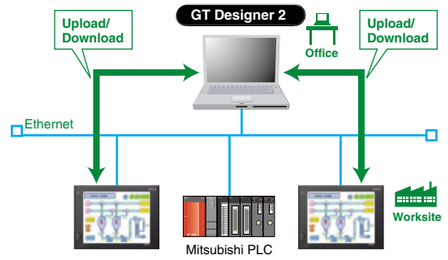
GOT1000 GRAPHIC OPERATION TERMINAL

High-speed uploading/downloading via Ethernet

- Project data can be uploaded and downloaded* from your personal computer to a GOT terminal from a remote site via Ethernet.

Comparison of project data downloading time





*: Ethernet communication unit (GT15-J71E71-100) must be installed on the GOT main unit where basic functions have also been installed.

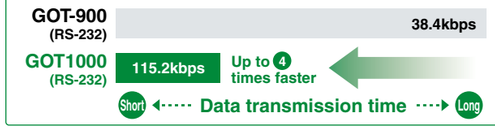
For GOT data transmissions & a variety of external connections

GOT1000 GRAPHIC OPERATION TERMINAL

Standard-item RS-232 interface

- Both the GT15 and GT11 have RS-232 interfaces located in convenient positions (bottom and side respectively) for cable connection. The GT11 also has a RS-422 interface.
- RS-232 interface is used for FA device connection, data transmission and bar-code reader connection, etc.

Comparison of project data downloading time



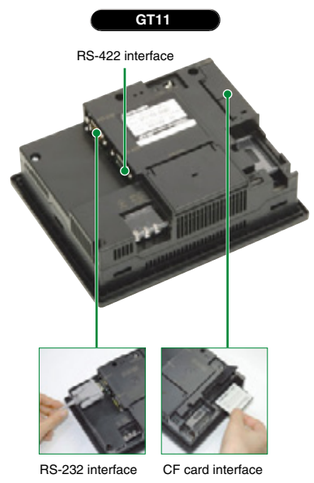
*: To connect GOT and a personal computer, use the dedicated RS-232 or RS-422 cable. For more details, see Product List on page 68.

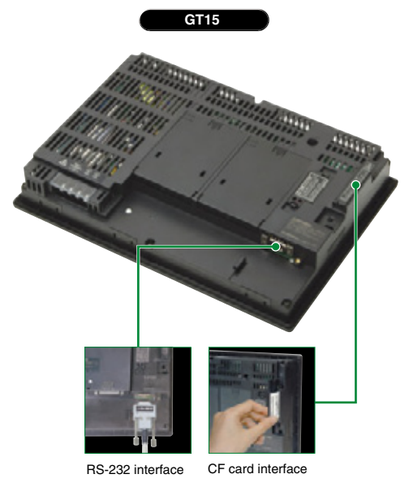
Multi-purpose CF card interface for functions such as data transmission and alarm storage

GOT1000 GRAPHIC OPERATION TERMINAL

Multi-purpose CF card interface

- All models are equipped with a CF card interface standard.
- The CF card interface permits rapid GOT data transmission even when the GOT is not connected to a personal computer by cable.
- When using multiple GOT units, a single CF card enables a quick GOT setup procedure simply by copying the data to each GOT unit.





*: The above image is GT115□-Q□BD.

Error detection and recovery through the GOT's Alarm Function with advanced features

For maintenance personnel

Accurate communication minimizes machine downtime even during an alarm

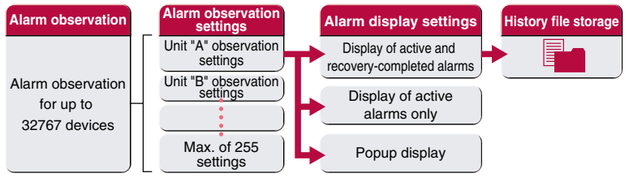
GT 15

GOT1000 GRAPHIC OPERATION TERMINAL

Advanced alarm

Advanced alarm features

1 A wider monitoring range protects even large-scale systems
2 Rapid detection and corrective action for a wide array of alarms
3 Easy-to-understand error displays for the operator
4 Improved system alarms
5 Support in identifying alarm causes



1 A wider monitoring range protects even large-scale systems

- Alarm observation is possible for up to 32767 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 32767 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

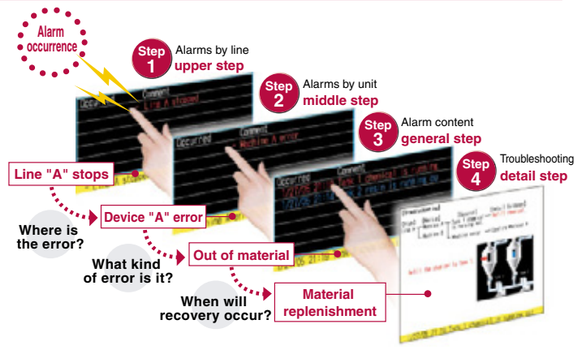
Four-step alarm notification

- Alarm occurrence conditions can be divided into 4 steps and conveyed to the operator in an easy-to-understand, step-by-step format.

For example,
STEP1: Alarms by line (upper step)
STEP2: Alarms by unit (middle step)
STEP3: Alarm content (general step)
STEP4: Troubleshooting (detail step)

When multiple alarms occur, the above format permits the operator to quickly organize and identify the alarm conditions (what happened and where), resulting in effective troubleshooting.

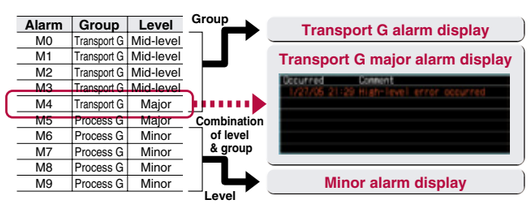
- The contents of the 4 steps shown above can be freely defined to suit the application in question, with switching between the step displays performed by the step switching device or by touch-screen operation.



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



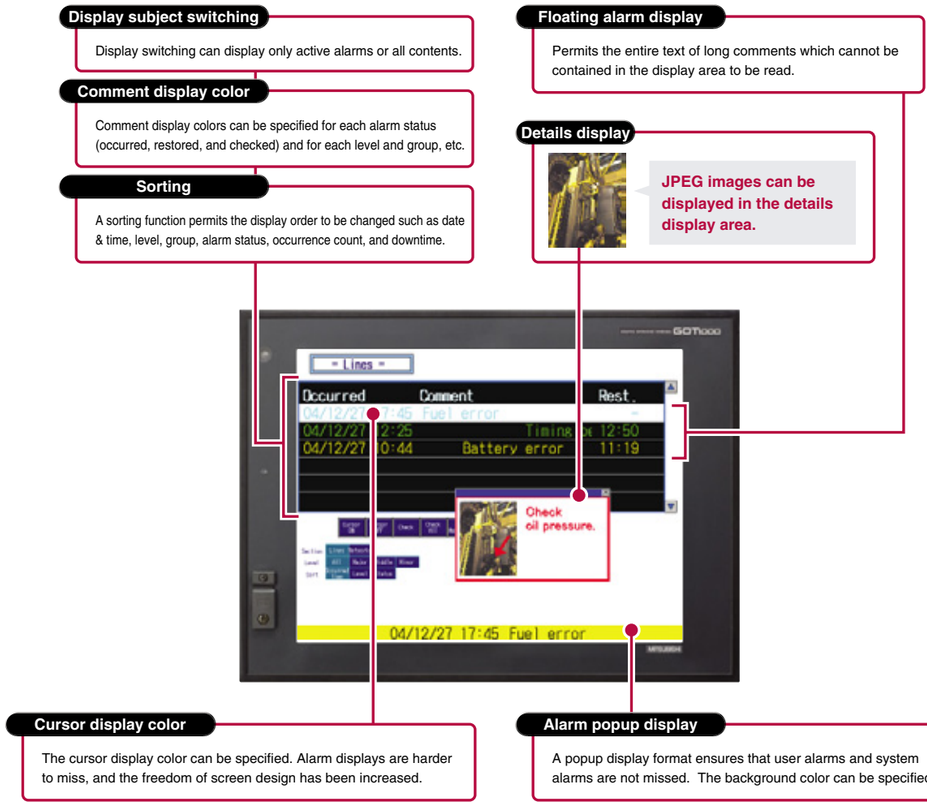
By group:
Alarms are divided into groups (e.g. transport unit group, processing unit group), with alarms displayed only for the specified groups.

By level:
Alarms are divided into levels (major, mid-level, minor), with only the specified level alarms displayed.

Combination of group & level:
Only the specified group and level alarms are displayed.

3 Easy-to-understand display

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



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.

GOT provides complete traceability for safe and secure operation

For maintenance personnel

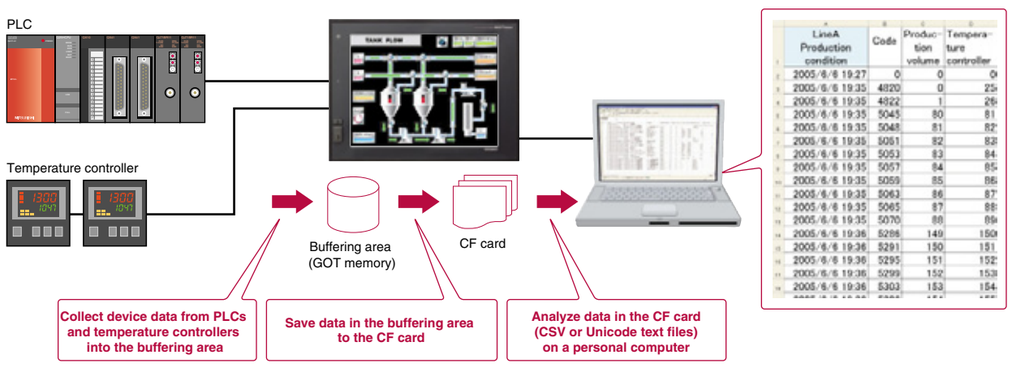
Smooth operation from the collection of various data to storage of time-series data

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.



Now the optional function board (GT15-FNB) is not required. For more details, see Notes for Use on page 59.

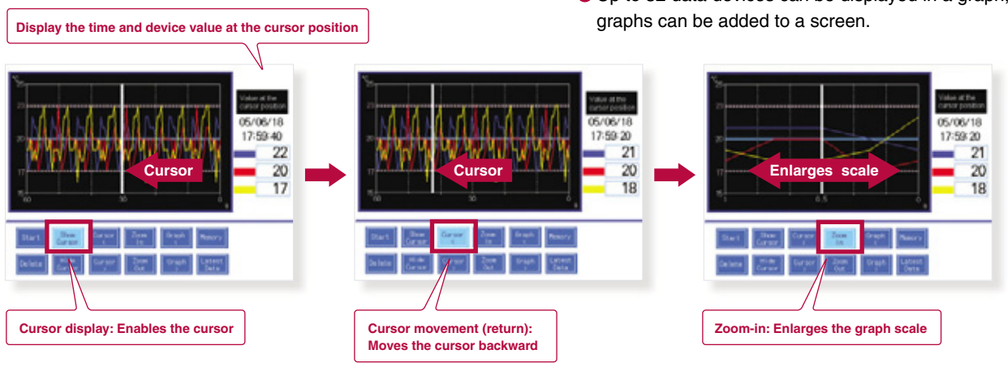
Easy-to-read logging data in a graphical display

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.
- 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.



Now the optional function board (GT15-FNB) is not required.
For more details, see Notes for Use on page 59.

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

Enhanced security system by password control

NEW GT15

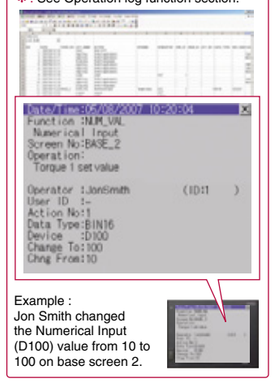
GOT1000 GRAPHIC OPERATION TERMINAL

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 incorrect 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 section.



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.

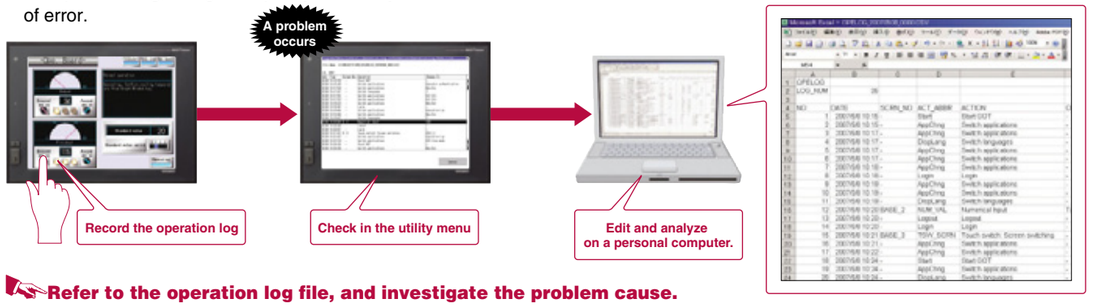
Helpful for identification and analysis of problem causes

NEW 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. 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 error.
- 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.

[Required devices] • CF card
Now the optional function board (GT15-FNB) is not required. For more details, see Notes for Use on page 59.

Functions designed to support maintenance work significantly reduces downtime!

For maintenance personnel

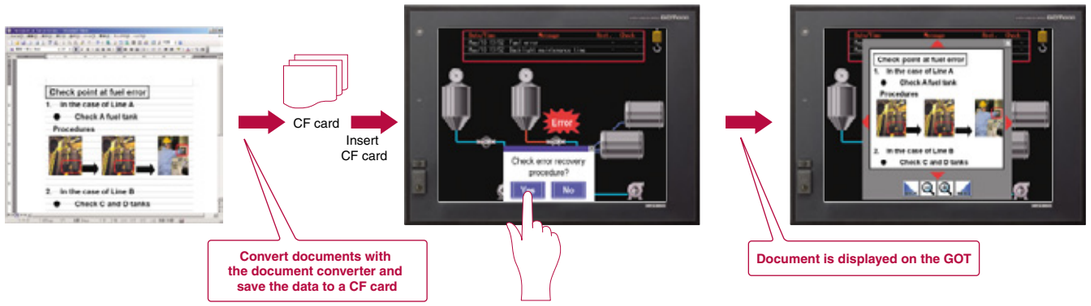
Display various documents on the GOT at the worksite

NEW 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 computers 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.
- Documents created by applications such as Microsoft® Word can be used, reducing the man-hours of screen design.
  • Supported file format: 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 allow for better viewing on the GOT.



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

[Required devices] • Optional function board (GT15-QFNB (□M) or GT15-MESB48M) • CF card
For more details, see Notes for Use on page 59.

*: For more details, see Document converter on page 29.

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

For planned commodity maintenance

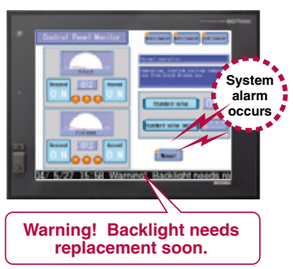
GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Maintenance time notification function

- The backlight lifespan can be automatically monitored to notify the operator when in need of maintenance.
- Facilitates scheduled maintenance, thereby preventing system malfunctions.

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



[Required devices] • Battery
Now the optional function board (GT15-FNB) is not required.
For more details, see Notes for Use on page 59.

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

NEW GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Backup/restoration function

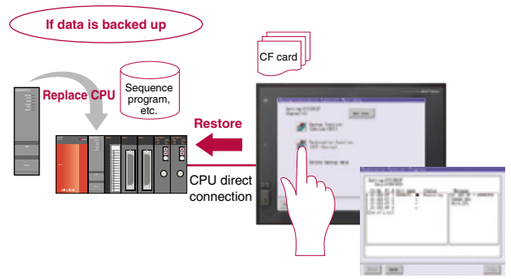
- The sequence program and parameter data of the PLC CPU is backed up to the CF card in the GOT. Users can perform batch operation to restore the data to the PLC CPU.

<Objective data> Sequence programs, parameters, device comments, device initial value data
<Objective model> MELSEC-Q series PLC*
<Usable connection type> Bus connection, CPU direct connection, computer link connection, Ethernet connection (host only)

*: Excluding Q12PH/Q25PHCPU, Q12PRH/Q25PRHCPU.

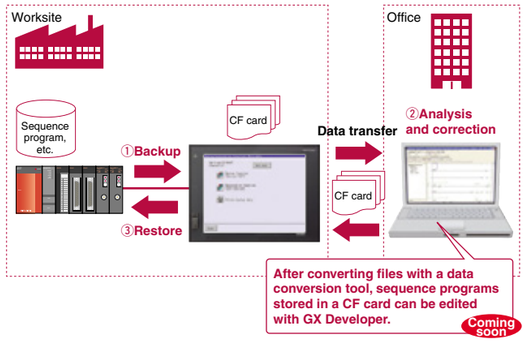
Example of use①

In case of PLC CPU failure, users can quickly replace the faulty device and restore the system by using previously backed up data.



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.

[Required device] • CF card

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

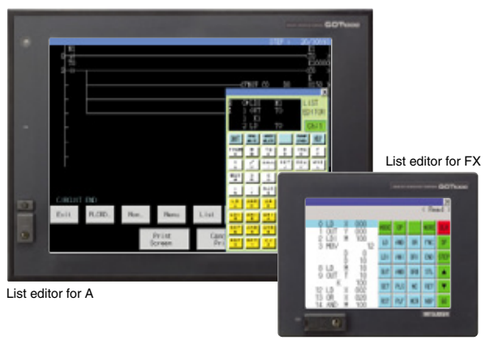
Convenient method for minor program changes onsite

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.
- The GT15 permits sequence program editing while viewing the ladder circuit (combined with the circuit monitor function).

Now the optional function board (GT15-FNB/GT11-50FNB) is not required.
For more details, see Notes for Use on page 59.



Extensive FA device compatibility reduces your maintenance work

For maintenance personnel

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

GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Ladder monitor function

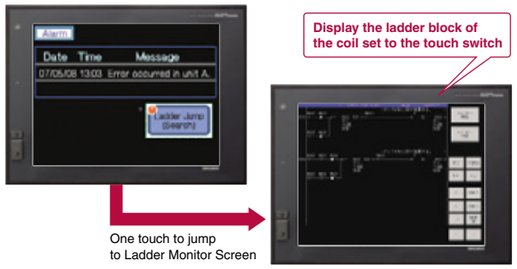
MELSEC Q/QnA/A/FX series PLC sequence programs can be monitored in a circuit diagram (ladder format).

Wide monitoring range

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

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.

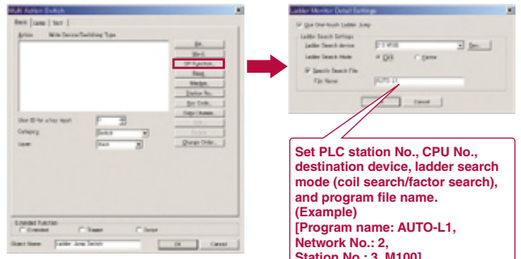
✻ : Ladder Monitor Function is supported by GT15 series XGA/SVGA/VGA models.

Device comments are stored in 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 memory capacity of the PLC is greatly saved. NEW
- Device comments in the sequence programs written in Korean (Hangul) characters can also be displayed.

How to use One-Touch Ladder Jump function

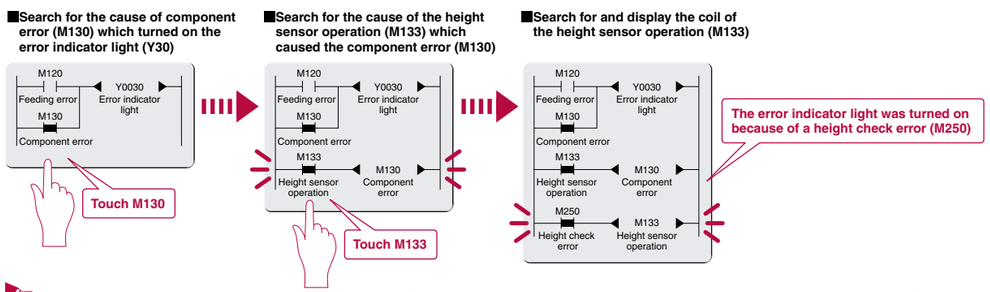
- Select [SP Function]-[Ladder Monitor] from the touch switch property dialog.



Other useful functions

- Device values and timer (T)/counter (C) setting values can be changed.
- 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.

[Required devices] To use Q/QnA Ladder Monitor Function, the optional function board GT15-QFNB (□M) or GT15-MESB48M is required.
Now the optional function board (GT15-FNB) is not required to use the Ladder Monitor Function for A series. For more details, see Notes for Use on page 59.

PLC device monitoring/changes

GOT1000 GRAPHIC OPERATION TERMINAL

System monitor function

- Mitsubishi PLC CPU devices can be monitored and changed.
- 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.

At-a-glance monitoring of MELSECNET network status

GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Network monitor function

- Network status of the MESLECNET/H, MELSECNET/10 and MELSECNET Ⅱ can be monitored on a dedicated screen.
- Communication line and information from the host and other stations can be monitored to check the communication status.

Easy adjustment of Q series motion controller

GT15

GOT1000 GRAPHIC OPERATION TERMINAL

Q series motion monitor function

- Monitoring of servo amplifiers and parameter settings of Q motion controllers can be performed.✻1
- Monitoring and parameter setting can be performed for up to three Q172(N)/Q173(N) and Q172H/Q173H NEW units on the same base unit.

✻1 : 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 startup and adjustment of servo amplifier

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.✻2
- When multiple servo amplifiers are connected, monitor screens can be easily switched on a GOT by specifying station numbers.

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

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

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) is in use, the CPU operating status and existing errors can be monitored by PLC diagnosis.

✻ : Supported by GT15 series XGA/SVGA/VGA models.

Save space and cost when no dedicated display device is required

GT15

GOT1000 GRAPHIC OPERATION TERMINAL

CNC monitor function

- When a MELDAS C6/64 is connected, the position display monitor, alarm diagnosis monitor, and tool offset parameters can be set on the GOT as well as on a display device dedicated to MELDAS.
- Up to 64 CNC units can be monitored over an Ethernet connection.
  Only a control station can be monitored over a MELSECNET/10 connection.

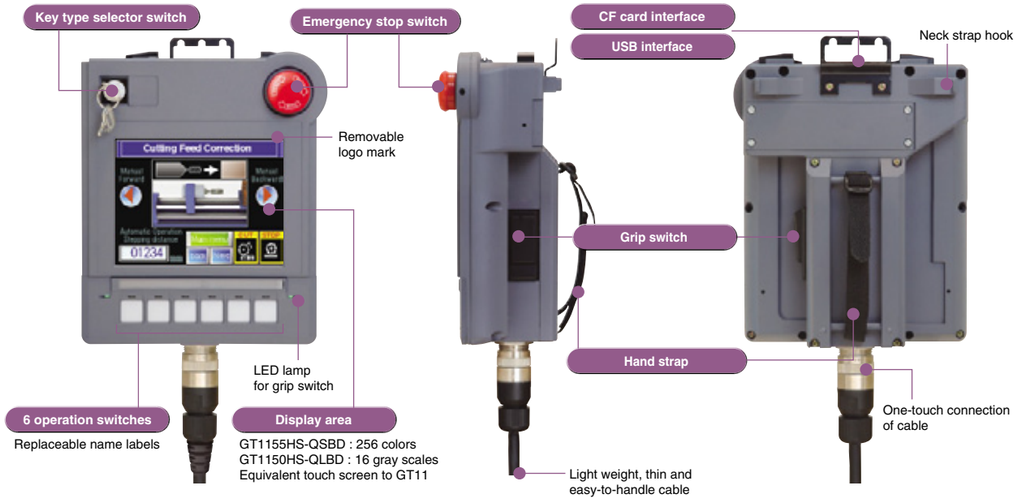
✻ : Supported by GT15 series XGA and SVGA models.

Now the optional function board (GT15-FNB) is not required. For more details, see Notes for Use on page 59.

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

Experience the colors of the compact GOT lineup

GT10

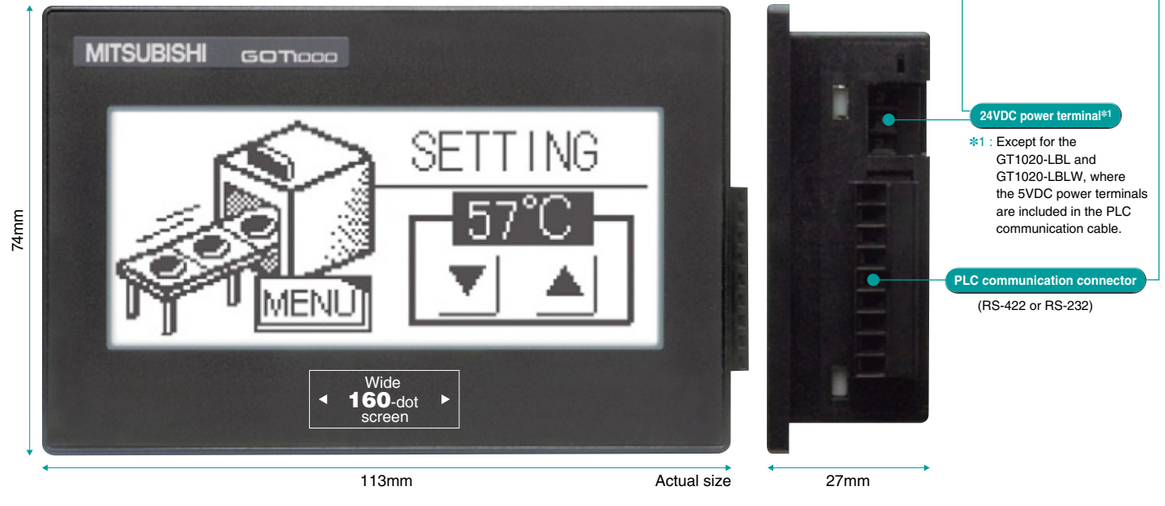
- The 3-color LED backlight offers users a variety of display backgrounds.
- Two selectable wide screen sizes: 4.5" model with 288 × 96 pixel resolution, and 3.7" model with 160 × 64 pixel resolution.
- The high-brightness LCD offers clear imaging even under external lighting conditions.
- Thin in depth, and conforming to the protective structure IP67f standard.

GT1030 Wide and creative visual solutions

- 4.5" type: 3-color LED (green/orange/red) type NEW • GT1030-LBD (RS-422 connection) • GT1030-LBD2 (RS-232 connection)
  3-color LED (white/pink/red) type NEW • GT1030-LBDW (RS-422 connection) • GT1030-LBDW2 (RS-232 connection)

GT1020 Super-small display

- 3.7" type: 3-color LED (green/orange/red) type
  • GT1020-LBD (RS-422 connection) • GT1020-LBD2 (RS-232 connection) • GT1020-LBL (RS-422 connection, 5VDC power supply)
  3-color LED (white/pink/red) type NEW
  • GT1020-LBDW(RS-422 connection) • GT1020-LBDW2(RS-232 connection) • GT1020-LBLW (RS-422 connection, 5VDC power supply)



The usability of a GOT1000 condensed into a compact body

Flexible screen layout GT1030 GT1020

GT1030

GT1020

- The use of the matrix type touch panel enables simultaneous two-point press.
  - Matrix type touch panel • Minimum unit of touch key size: 16 × 16 dots
  - Maximum number of touch keys: 50/screen

- Due to the high resolution of the analog touch panel, touch switches can be placed with up to 1 pixel accuracy.
  - Analog touch panel • Min. unit of touch key size: 2 × 2 dots
  - Maximum number of touch keys: 50/screen

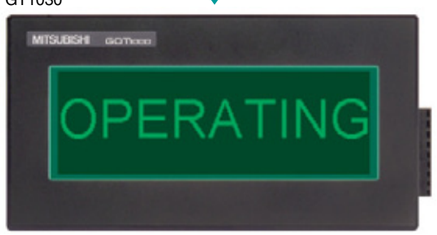
Wide, high-resolution LCD screen GT1030

- The resolution has been improved while keeping the same panel cut size as our F930GOT. (1.2 times higher resolution than the F930)

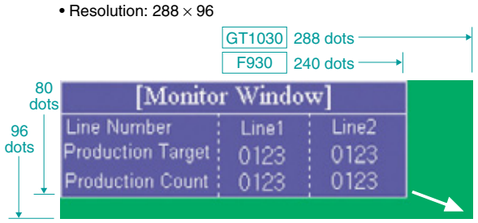
F930

• Resolution: 240 × 80

GT1030

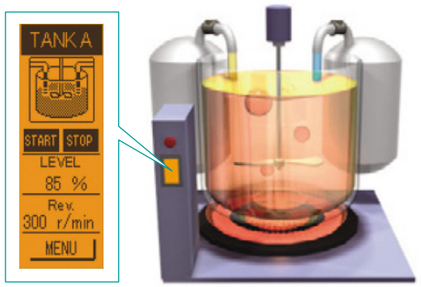


• Resolution: 288 × 96

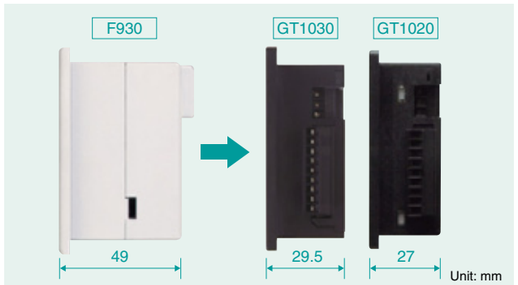


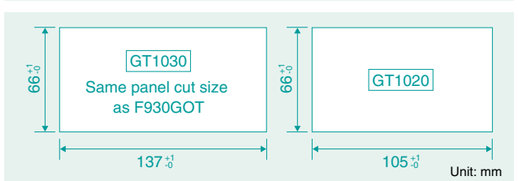
Versatile mounting GT1030 GT1020

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



Thin and interchangeable panel cut size GT1030 GT1020





Choose your font! GT1030 GT1020

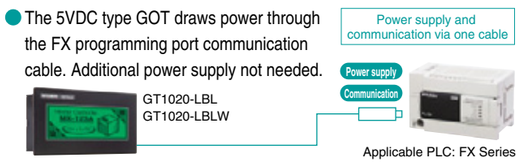
- A variety of fonts are available including the standard type set and Windows® type set.
- When Windows® fonts are selected, italic, underline and underlined italic are also available.

Font type	Size	Font name	GT1030	GT1020
Standard※1	6 × 8 dots	Gothic	○	○
	12 dots	Gothic	○	—
	16 dots	Gothic	○	○
High quality	12 dots	Gothic/Mincho	○	○
	16 dots	Gothic/Mincho	○	○
TrueType		Gothic/Mincho	○	○
Windows® type		※2	○	○

※1 : Standard fonts cannot be changed.
※2 : Fonts in user's personal computer where GT Designer2 is installed.

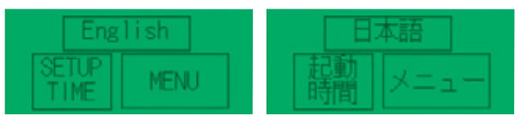
Power supply and communication GT1020

- The 5VDC type GOT draws power through the FX programming port communication cable. Additional power supply not needed.



Simple set-up of language switching windows GT1030 GT1020

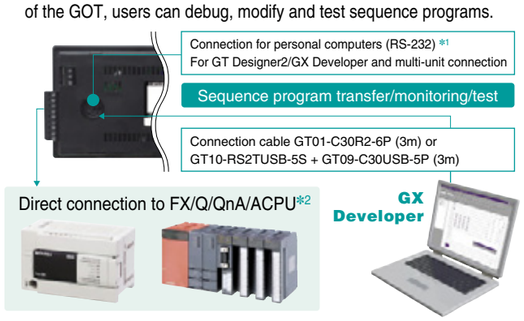
- Language switching windows can be easily created allowing one language to be switched to another, for example English to Japanese.
- Up to 10 languages can be switched per comment group. Window switching can take place not only for languages but also for different applications.



English Japanese

Transparent mode GT1030 GT1020

- Through the personal computer communication connector on the back of the GOT, users can debug, modify and test sequence programs.



※1 : When two GT10 series units are connected, this connector is available to communicate with the second GT10 unit.
※2 : GT1020-LBL and GT1020-LBLW can only be connected to the FX PLC.

Alternative start-up screen GT1030 GT1020

- Users can set-up alternative images to be displayed when the GOT starts up.

※ : Bitmap images only.

Character from all over the world for people all over the world GT1030 GT1020

- GT10 series can display a number of languages for a variety of countries and areas.

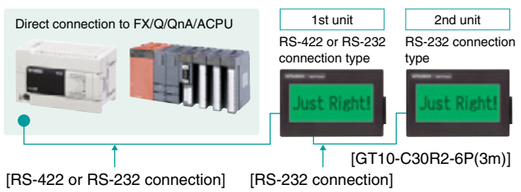
Compatible with Unicode 2.1

Functionality of the GOT1000 series in a compact design GT1030 GT1020

- Recipe function included
  The GOT has a built-in memory for up to 4000 points (corresponding to 16-bit word devices) of recipe data. Using this memory the GOT can transfer a range of values to/from the PLC.
- Communication drivers
  - 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 the FX Series PLC. To connect Q/QnA/A Series PLC or a microcomputer board or third party PLC, you have to install the required communication driver available using GT Designer2.
- Screen saver and alarm function

Multi-unit connection for high cost performance GT1030 GT1020

- Up to two units of GT10 can be connected in serial.



※ : When two GT10 units are connected, transparent functionality is disabled.

Trouble free

- The GT10 series uses an LED backlight for high reliability that does not require replacement. GT1030 GT1020
- The GT10 series is equipped with a flash ROM, therefore it does not require a battery. GT1020
- Major functionality (For more information, see the corresponding manual.)

Features	◎Screen data: up to 1024 base screens + 3 types of key windows ◎Font: Gothic (size: 6 × 8 dots, 16 dots [12 dots available only on GT1030], high quality, TrueType, Windows fonts) ◎Screen switching function, screen call, language switching function, password protection, system information, connected equipment setting and startup logo
Figure drawing	◎Straight line, continuous straight line, rectangle, polygon, chamfered rectangle, circle, ellipse, arc, elliptical arc, circular sector, elliptical sector ◎Scale display ◎Painting ◎Image type (BMP/DXF)
Object	◎Comment registration (basic comment/comment group) ◎Object registration ◎Data calculation function ◎Offset function ◎Security function ◎Lamp display ◎Touch key ◎Numerical display/input ◎ASCII display/input NEW ◎Clock display (GT1030: built-in clock, GT1020: linked to PLC clock) ◎Comment display ◎Alarm list/alarm history ◎Parts display ◎Panel meter ◎Trend graph/line graph/bar graph/statistical band graph NEW /statistical circle graph NEW ◎State monitoring function ◎Recipe function (4000 points) ◎Time action function

Use your personal computer as a GOT

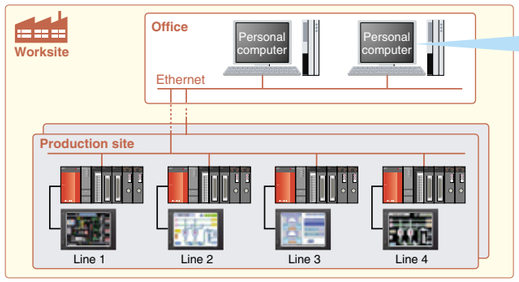
GT SoftGOT1000 Version2

For GOT1000

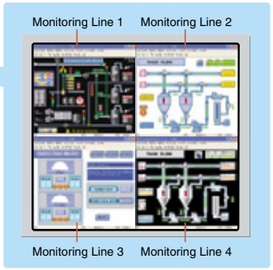
Screen data created by GT Designer2 Version2 can be used without conversion. GT SoftGOT1000 is an HMI software which offers the GOT1000 functions on personal computers and panel computers.

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

● GT SoftGOT1000 and PX Developer monitoring tools can be connected to easily establish an instrumentation monitoring system.

PX Developer monitoring tool bar

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

PX Developer face plate and other tools

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

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.)

Improved usability

● Internal device interface functions: By using internal device interface functions, user-created applications can read/write data from/to the GOT internal devices. Furthermore, 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++(Version.6.0), 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.

● Full-screen display: The whole monitoring screen can be displayed in full-screen by hiding the title bar and the menu bar.

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 or Windows®XP operates.	CONTEC PC CPU Unit (PPC-852-212, PPC-852-217)※6
OS※1※2	Microsoft® Windows®2000 Professional Operating System (English version) Microsoft® Windows®XP Professional Operating System (English version) Microsoft® Windows®XP Home Edition Operating System (English version)	
CPU	Pentium Ⅱ® 300MHz or higher	
Required memory	128MB or more	
Free hard disk space※3	For installation (product only): 250MB or more	
Disk drive	CD-ROM disk drive	
Display colors	65536 colors or more	
Display	Display usable on the above OS, which have a resolution of VGA (640 × 480 dots) or higher	
Software	When creating or editing project data : GT Designer2※4 When using with PX Developer : PX Developer Version 1.14Q or later GT Designer2 Version 2.47Z or later	
Hardware※5	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	Internal Explorer Ver. 5.0 or higher must be installed. Mouse, keyboard, printer and CD-ROM drive usable with the above OS	

Specifications

Item	
Resolution (dots)	640 × 480, 800 × 600, 1024 × 768, 1280 × 1024
Display colors	65536 colors
Memory capacity	57MB
Connection configuration※7	Bus connection※8, CPU direct connection, computer link connection, MELSECNET connection, Ethernet connection

※1 : To install GT SoftGOT1000, administrator authority is required. Administrator authority is also required to use GT SoftGOT1000 on the following operating systems.
• Windows®XP Professional • Windows®XP Home Edition
※2 : "Compatibility mode," "user account," "desktop appearance (font)" and "remote desktop" are not supported.
※3 : To use GT Designer2 and PX Developer, separate available space is required. For the free space required to use GT Designer2, see the GT Designer2 Version2 Basic Operation/Data Transfer Manual. For the free space required to use PX Developer monitoring tool, see the PX Developer Version 1 Operating Manual (Monitor Tool). To use applications created by the users, separate available space is required.
※4 : GT Designer2 and GT SoftGOT1000 must be installed from the same GT Works2/GT Designer2.
※5 : To use GT15-SGTKEY-U, use the personal computer which has an USB port. To use GT15-SGTKEY-P, use the personal computer which has a parallel port (Centro/printer connector). When using a personal computer CPU, use GT15-SGTKEY-U.
※6 : When using a personal computer CPU, bus connection (Q Series on the same base) is available. Use the license key GT15-SGTKEY-U (for USB port). For usable personal computer CPUs, see the GT Designer2 Version2 Screen Design Manual.
※7 : The required devices vary depending on the connection configuration.
※8 : For CONTEC PC CPU unit, refer to the manual of the PC CPU module.

List of connectable models

[PLCs/motion controllers]

Mitsubishi PLCs and motion controllers

Series	Model name	Connection configuration				
		CPU direct connection	Computer link	MELSECNET/H※1	MELSECNET/10※2	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						
	Q12PHCPU	○		×	○※5※6	○※5※6	○
	Q25PHCPU						
	Q12PRHCPU						
	Q25PRHCPU						
MELSECNET/H remote I/O station	Q72LP25-25	○	×	×	×	×	×
	Q72LP25G						
	Q72BR15						
MELSEC-Q series (A mode)	Q02CPU-A	○	○	×	○	○
	Q02HCPU-A						
	Q06HCPU-A						
MELSEC-QnA series (QnACPU type)	Q2ACPU	○	○※4	×	○	○※4
	Q2ACPU-S1						
	Q3ACPU						
	Q4ACPU						
	Q4ARCPU						
MELSEC-QnA series (QnASCPU type)	Q2ASCPU	○	○※4	×	○	○※4
	Q2ASCPU-S1						
	Q2ASHCPU						
	Q2ASHCPU-S1						
MELSEC-A series (AnCPU type)※10	A2UCPU	○※7	○	×	○	○
	A2UCPU-S1						
	A3UCPU						
	A4UCPU						
	A2ACPU						
	A2ACPUP21						
	A2ACPUR21						
	A2ACPU-S1						
	A2ACPUP21-S1						
	A2ACPUR21-S1						
	A3ACPU						
	A3ACPUP21						
	A3ACPUR21						
	A1NCPU						
	A1NCPUP21						
	A1NCPUR21						
	A2NCPU						
	A2NCPUP21						
	A2NCPUR21						
	A2NCPU-S1						
	A2NCPUP21-S1						
	A2NCPUR21-S1						
	A3NCPU						
	A3NCPUP21						
	A3NCPUR21						
MELSEC-A series (AnSCPU type)※10	A2USCPU	○※7	○	×	○	○
	A2USCPU-S1						
	A2USHCPU-S1						
	A1SCPU						
	A1SCPUC24-R2						
	A1SHCPU						
	A2SCPU						
	A2SCPU-S1						
	A2SHCPU						
	A2SHCPU-S1						
	A1SJCPU						
	A1SJCPU-S3						
	A1SJHCPU						
MELSEC-A series※10	A0J2HCPU	○※7	○	×	×	○
	A0J2HCPUP21						
	A0J2HCPUR21						
	A0J2HCPU-DC24						
	A2CCPU	○※7	×	×	×	×
	A2CCPUP21						
	A2CCPUR21						
	A2CCPUC24	○※7	○	×	×	×
	A2CCPUC24-PRF						
	A2CJCPU-S3	○※7	×	×	×	×
	A1FXCPU	○	×	×	×	×

Mitsubishi PLCs and motion controllers

Series	Model name	Connection configuration				
		CPU direct connection	Computer link	MELSECNET/H※1	MELSECNET/10※2	Ethernet
Motion controller CPU (Q series)	Q172CPU	×	×	×	×	×
	Q173CPU					
	Q172CPUN					
	Q173CPUN					
	Q172HCPU					
	Q173HCPU					
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	○※8	○	×	○	○
	A171SHCPUN					
	A172SHCPU					
	A172SHCPUN					
	A173UHCPU					
	A173UHCPU-S1					
MELSEC-FX series	FX0S	○	×	×	×	×
	FX0N					
	FX1S					
	FX1N					
	FX1NC					
	FX2N					
	FX2NC					
	FX3U					
	FX3UC					

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 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
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 below.
• Q80BD-J71BR11 (coaxial loop)
• Q80BD-J71LP21-25 (optical loop)
• Q80BD-J71LP21G (optical loop)

For Ethernet connection

CPU series	Ethernet module
MELSEC-Q series (Q mode)	QJ71E71-100/QJ71E71-B5/QJ71E71-B2/QJ71E71
MELSEC-QnA series	AJ71QE71N3-T/AJ71QE71N-B5/AJ71QE71N-B2/AJ71QE71N-T/ AJ71QE71N-B5T/AJ71QE71/AJ71QE71-B5/A1SJ71QE71N3-T/ A1SJ71QE71N-B5/A1SJ71QE71N-B2/A1SJ71QE71N-T/ A1SJ71QE71N-B5T/A1SJ71QE71-B5/A1SJ71QE71-B2
MELSEC-Q series (A mode)/ MELSEC-A series/ A series motion controller CPU※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.

Modules usable when connected with Mitsubishi CNCs

For Ethernet connection

CPU series	Ethernet module
MELDAS C6/C64	FCU6-EX875

[CNCs]

Mitsubishi CNCs

Series	Model name	Connection configuration				
		CPU direct connection	Computer link	MELSECNET/H※1	MELSECNET/10※2	Ethernet
MELDAS C6/C64	FCA C6	○※9	×	×	×	○※9
	FCA C64					

※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.
※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.

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

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.

Mitsubishi PLCs/motion controllers

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

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

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

※1 : Supported only by the GT15.
※2 : Supported only by the GT15, GT115□-Q□BDQ and GT115□-Q□BDA.
※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
※6 : When using A series computer link (C24 modules) 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.
※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 and Q173HCPU.
The Q172HCPU and Q173HCPU can be accessed using a multi-CPU system QCPU RS-232.
※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.
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
GT10 ··· When connected via RS-232 : GT1030-LBD2/LBDW2, GT1020-LBD2/LBDW2
When connected via RS-422 : 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
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
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 (C24 modules) 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 MELSECNET/H connection

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

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

●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.

●CC-Link (via G4) connection※1

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

※1 : GT115□-Q□BD can monitor only the master station.

●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	A1SJ71QE71N3-T
	AJ71QE71N-B5	A1SJ71QE71N-B5
	AJ71QE71N-B2	A1SJ71QE71N-B2
	AJ71QE71N-T	A1SJ71QE71N-T
	AJ71QE71N-B5T	A1SJ71QE71N-B5T
	AJ71QE71	A1SJ71QE71-B5
	AJ71QE71-B5	A1SJ71QE71-B2
MELSEC-Q series (A mode) MELSEC-A series Motion controller CPU (A series)	AJ71E71N3-T	A1SJ71E71N3-T
	AJ71E71N-B5	A1SJ71E71N-B5
	AJ71E71N-B2	A1SJ71E71N-B2
	AJ71E71N-T	A1SJ71E71N-T
	AJ71E71N-B5T	A1SJ71E71N-B5T
	AJ71E71-S3	A1SJ71E71-B5-S3
		A1SJ71E71-B2-S3

※1 : When using an A series Ethernet (E71 modules) 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)

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		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					×	
	SYSMAC CQM1H	CQM1H		○		×		
	SYSMAC CJ1	CJ1H			○		○	
		CJ1G						
		CJ1M						
	SYSMAC CP1	CP1H		○			×	
	SYSMAC α	C200HX					○	
		C200HG						
		C200HE					×	
	SYSMAC CS1	CS1H						
		CS1G					○	
		CS1D						
	SYSMAC CVM1/CV	CV500		×	×	○		
		CV1000						
		CV2000						
		CVM1						
		CQM1					○※2	
		C200HS		○	○	×	×	
		C200H						
		C1000H						
		C2000H						
KEYENCE※1		KV-700		○	○	×	○	×
		KV-1000						
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)						
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						

Manufacturer		Model name	Computer link connection		CPU direct connection		Ethernet connection ※9
			RS-422	RS-232	RS-422	RS-232	
Matsushita Electric Works※1		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※1		GL120	○	×	×	○	×
		GL130					
		GL60S		○		×	
		GL60H					
		GL70H					
		CP-9200SH	×	○	×	×	
		CP-9300MS		×			
		MP920	○	○			○
		MP930	×	×	○	○	×
		MP940					
		PROGIC-8			×		
		CP-9200 (H)					
		MP2200	○	○		×	○
		MP2300					
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	×	×	×	○	×
		NFJT100					
Allen-Bradley (Rockwell)	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					
SIEMENS		SIMATIC S7-200 Series	×	×	×	○	×
		SIMATIC S7-300 Series				○※1	
		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. Coming soon
※9 : Only GT15 is applicable.

※ : Applicable GOT varies depending on the connection destination.
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
GT10 ··· When connected via RS-232 : GT1030-LBD2/LBDW2, GT1020-LBD2/LBDW2
When connected via RS-422 : 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 third party computer link and Ethernet modules

Manufacturer	RS-422	RS-232	Ethernet
OMRON Host link unit/ communication unit/ communication board	C200H-LK202-V1 C500H-LK201-V1 CQM1-SCB41 CJ1W-SCU41 CJ1W-SCU21-V1+CP1W-EXT01 CS1W-SCB41 C200HW-COM03 C200HW-COM06 CP1W-CIF11	C200H-LK201-V1 C500H-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-L20R KV-L20	—
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	—

Manufacturer		RS-422	RS-232	Ethernet
Hitachi Communication module		LQE565 LQE165	LQE560 LQE060 LQE160	—
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) EtherNet/IP communication module		—	—	1756-ENBT

Temperature controllers/indicating controllers

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

Manufacturer	Model name		GT15/GT11		
			RS-485	RS-422	RS-232
OMRON	Thermac NEO	E5AN	○(2-wire type)※1	×	○※2
		E5EN	○(2-wire type)※1	×	○※2
		E5CN	○(2-wire type)※1	×	○※2
		E5GN	○(2-wire type)※1	×	○※2
	In-Panel NEO	E5ZN	○(2-wire type)※1	×	○※2
Shinko Technos	ACS-13A series	ACS-13A□/□, □, C5	×	×	○※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			○※4
		FCR-15A-□/M, C			
	FCD-100 series	FCD-13A-□/M, C			
		FCD-15A-□/M, C			
	FCR-23A series	FCR-23A-□/M, C			
	PC-900 series	PC935-□/M, C			
		PC955-□/M, C			
	FIR series	FIR-201-M, C			
	JIR-301-M series	JIR-301-M□, C5			○※2
CHINO	LT300 series	LT350, LT370	○(2-wire type)※1	○	○※2 ※3
	LT400 series	LT450, LT470	○(2-wire type)※1	○	○※2 ※3
	DZ1000 series	DZ1000※7	○(2-wire type)※1	○	○※2 ※3
	DZ2000 series	DZ2000※7	○(2-wire type)※1	○	○※2 ※3
	LT230 series	LT230	○(2-wire type)※1	×	○※2
	LT830 series	LT830	○(2-wire type)※1	×	○※2
	GT120 series	GT120	○(2-wire type)※1	×	○※2
Fuji Electric Systems	Micro Controller X	PXR PXR3/4/5/9	○(2-wire type)※1	×	○※2
		PXG PXG4/5/9	○(2-wire type)※1	×	○※2
		PXH PXH9	○(2-wire type)※1	×	○※2
YAMATAKE	SDC	SDC10	○(4-wire type)	×	○※2
		SDC20/21	○(4-wire type)	×	○※2
		SDC30/31	○(4-wire type)	×	○※2
		SDC40A/40B/40G	○(4-wire type)	×	○※2
		SDC15	○(2-wire type)※1	×	○※2
		SDC25/26	○(2-wire type)※1	×	○※2
		SDC35/36	○(2-wire type)※1	×	○※2
	DMC	DMC10	○(2-wire type)※1	×	○※2

Manufacturer	Model name		GT15/GT11		
			RS-485	RS-422	RS-232
Yokogawa	GREEN series	UT320	○(2-wire type ※1 /4-wire type)	×	○※2
		UT321			
		UT350			
		UT351			
		UT420			
		UT450			
		UT520			
		UT550			
		UT551			
		UT750			
		UP350			
		UP351			
		UP550			
		UP750			
		UM330			
		UM331			
		UM350			
		UM351			
		US1000			
	UT100 series	UT130	○(2-wire type)※1		
		UT150			
		UT152			
		UT155			
		UP100			
	UT2000 series	UT2400	○(4-wire type)		
		UT2800			
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

※1 : Supported only by GT15. Use the GT15-RS4-TE. The GT15-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.

Inverters

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

Manufacturer	Model name	GT15/GT11	
		RS-422	RS-232
MITSUBISHI	FREQROL-S500/S500E	○	×
	FREQROL-E500	○	×
	FREQROL-F500/F500L	○	×
	FREQROL-F500J	○	×
	FREQROL-A500/A500L	○	×
	FREQROL-F700	○	×
	FREQROL-A700	○	×

Servo amplifiers

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

Manufacturer	Model name		GT15/GT11	
			RS-422	RS-232
MITSUBISHI	MELSERVO-J3 series	MR-J3-□A	○	○
	MELSERVO-J2-Super series	MR-J2S-□A	○	○
		MR-J2S-□CP	○	○
	MELSERVO-J2M series	MR-J2M-P8A	○	○
		MR-J2M□DU	○	○

CNC

The GOT can be used to monitor MELDAS C6/C64 and set the parameters.

Series	Model name	GT15/GT11 Connection configuration							
		Bus connection	CPU direct connection	Computer link	MELSEC NET/H	MELSEC NET/10 ※1 ※2	CC-Link (ID) ※1 ※3	CC-Link (via G4)	Ethernet ※1
MELDAS C6/C64	FCA C6	×	○※4	×	×	○※5	○※4	×	○※4
	FCA C64								

※1 : Supported only by GT15.
※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 : Use NC system software version E0 or later.

Modules usable when connected with Mitsubishi CNCs

●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

GT15

General specifications

Item		Specification					
Operating ambient temperature※1	Display	0 to 50°C					
	Other than display	0 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					

※1 : When an extension unit is mounted on the MELSECNET/H communication unit (GT15-J71LP23-25 or GT15-J71BR13) or CC-Link communication unit (GT15-J61BT13), the operating ambient temperatures are 5°C lower than the maximum temperatures shown in the general specifications table.
※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.

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	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]	
	Number 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	65536 colors				256 colors	16 colors	65536 colors	16 colors
	View angle※5	Right/left: 75°, Up: 50°, Down: 60°	Right/left: 60°, Up: 40°, Down: 50°	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]	350 [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※1	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						
	Number of touch keys	3072 keys/screen (48 lines × 64 columns)	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※2 (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]	–						
Memory※3	C drive	9MB built-in flash memory (for saving project data, extended function OS/optional function OS)				5MB built-in flash memory (for saving project data, extended function OS/optional function OS)		9MB built-in flash memory (for saving project data, extended function OS/optional function OS)	5MB built-in flash memory (for saving project data, extended function OS/optional function OS)
	Life (No. of writings)	100,000 times							
Battery		GT15-BAT type lithium battery (optional)							
	Backed up data	Clock data and maintenance time notification data							
	Life	Approx. 5 years (operating ambient temperature: 25°C)							
Built-in interface	RS-232	RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800 bps, 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)							
	USB	USB (full speed: 12 Mbps), device 1ch Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)							
	CF card	Compact flash slot, 1ch, Connector shape: TYPEⅠ Application: Data transfer and storage							
	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※4 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)		4.9 [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 2.58L or later							
	Simulation software	GT Simulator2 Version 2.58L or later							

※1 : Using the GOT screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.
※2 : 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.
※3 : The built-in memory is a ROM that permits overwriting of new data without having to delete the existing data.
※4 : Conforms to the IP67f (JEM1030) standard when the USB port cover is installed. (The USB interface conforms to IP2X (JEM1030) when a USB cable is connected.)
However, this does not guarantee protection in all users' environments.
※5 : 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.
※6 : 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

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 voltampere	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 width 1µs, and noise frequency 25 to 60Hz, by noise simulator with noise voltage 1500Vp-p			Noise width 1µs, and noise frequency 25 to 60Hz, by noise simulator with noise voltage 500Vp-p						
Withstand voltage	1500VAC for 1 minute between power supply terminal and ground for 1 minute			500VAC for 1 minute between power supply terminal and ground for 1 minute						
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]									

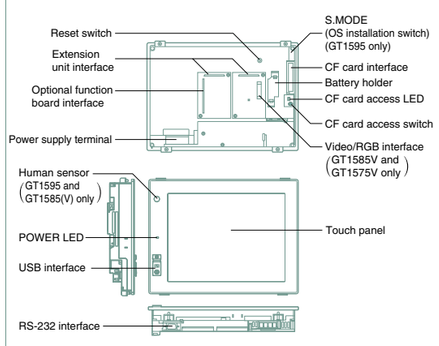
Performance specifications

Item		Specification			
		GT1555-VTBD	GT1555-QTBD	GT1555-QSBD	GT1550-QLBD
Display	Type	TFT color LCD (high-brightness, wide viewing angle)		STN color LCD	STN monochrome (black and white) LCD
	Screen size	5.7"			
	Resolution	VGA:640 × 480 [dots]	QVGA:320 × 240 [dots]		
	Display size	115(W) × 86(H) [mm]			
	Number 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	65536 colors		4096 colors	monochrome 16 gray scale
	View angle※5	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※1	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※6	Type	Matrix resistive type			
	Number 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	–			
Memory※3	C drive	9MB built-in flash memory (for saving project data, extended function OS/optional function OS)			
	Life (No. of writings)	100,000 times			
Battery		GT15-BAT type lithium battery (optional)			
	Backed up data	Clock data and maintenance time notification data			
	Life	Approx. 5 years (operating ambient temperature: 25°C)			
Built-in interface	RS-232	RS-232, 1ch, Transmission speed: 115200/57600/38400/19200/9600/4800 bps, 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)			
	USB	USB (full speed: 12 Mbps), device 1ch Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)			
	CF card	Compact flash slot, 1ch, Connector shape: TYPEⅠ Application: Data transfer and storage			
	Optional function board	1ch for optional function board installation			
	Extension unit	1ch for communication unit/optional unit installation			
Buzzer output		Single tone (tone length adjustable)			
Protective construction		JEM1030 Front: IP67f※4 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 2.58L or later			
	Simulation software	GT Simulator2 Version 2.58L or later			

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.

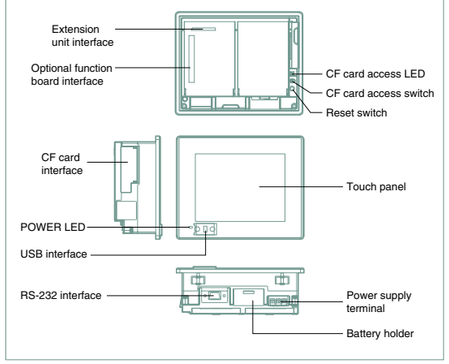
Component names

GT1595/GT1585/GT157□/GT156□



※ : This illustration shows GT1585V-STBA.

GT155□



GT11/GT10

General specifications

Item		Specification				
Operating ambient temperature	Display	0 to 50°C※5				
	Other than display	0 to 55°C※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	No corrosive gas					
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					

※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

Performance specifications

Item		Specification						
		GT1155-QSBD	GT1150-QLBD	GT1155HS-QSBD	GT1150HS-QLBD	GT1155-QTBDQ GT1155-QTBDA	GT1155-QSBDQ GT1155-QSBDA	GT1150-QLBDQ GT1150-QLBDA
Display	Type	STN color LCD	STN monochrome (black and white) LCD	STN color LCD	STN monochrome (black and white) LCD	TFT color LCD	STN color LCD	STN monochrome (black and 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)		
	Number 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 and white) 16 gray scale	256 colors	monochrome (black and white) 16 gray scale	256 colors		monochrome (black and white) 16 gray scale
	View angle	Right/left: 50°, Up: 50°, Down: 60° (in horizontal display mode)	Right/left: 45°, Up: 20°, Down: 40° (in horizontal display mode)	Right/left: 50°, Up: 50°, Down: 60°	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	350 [cd/m²]	220 [cd/m²]	350 [cd/m²]	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※1	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						
	Number 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※2	3MB built-in flash memory (for saving project data, OS)						
	Life (No. of writings)	100,000 times						
	D drive	Built-in SRAM, 512 Kbytes (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/ 57600/38400/19200/9600/4800 bps, 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/ 57600/38400/19200/9600/4800 bps, Connector shape: Round type, 32-pin (male) Application: Communication with connected devices		–		
	RS-232	RS-232, 1ch, Transmission speed: 115200/ 57600/38400/19200/9600/4800 bps, Connector shape: D-sub 9-pin (male) Application: Communication with connected devices, connection to personal computer (project data upload/download, OS installation, FA transparent function)		RS-232, 1ch, Transmission speed: 115200/ 57600/38400/19200/9600/4800 bps, Connector shape: Mini-DIN 9-pin (female) Application: Connection to personal computer (project data upload/download, OS installation, FA transparent function)		RS-232, 1ch, Transmission speed: 115200/ 57600/38400/19200/9600/4800 bps, Connector shape: D-sub 9-pin (male) Application: Connection to barcode reader, personal computer (project data upload/download, OS installation, FA transparent function)		
	USB	USB (full speed: 12 Mbps), 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 storage						
	Optional function board	1ch for optional function board installation				(Optional function board in main unit)		
Buzzer output		Single tone (tone length adjustable)						
Protective construction		JEM1030 Front: IP67f※3 In panel: IP2X		JEM1030 Front: IP65f※4		JEM1030 Front: IP67f※3 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. fittings)		1.0 [kg] (main unit only)		0.9 [kg] (excl. fittings)		
Applicable software packages	Screen design software	GT Designer2 Version 2.58L or later						
	Simulation software	GT Simulator2 Version 2.58L or later						

※1 : Using the GOT screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.
※2 : The built-in memory is a ROM that permits overwriting of new data without having to delete the existing data.
※3 : Conforms to the IP67f (JEM1030) standard when the USB port cover is installed. (The USB interface conforms to IP2X (JEM1030) when a USB cable is connected.) However, this does not guarantee protection in all users' environments.
※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.

Power supply specifications

Item	Specification							
	GT1155-QSBD GT1155HS-QSBD	GT1150-QLBD GT1150HS-QLBD	GT1155-QTBDQ GT1155-QTBDA	GT1155-QSBDQ GT1155-QSBDA	GT1150-QLBDQ GT1150-QLBDA	GT1030-LBD GT1030-LBD2 GT1030-LBDW GT1030-LBDW2	GT1020-LBD GT1020-LBD2 GT1020-LBDW GT1020-LBDW2	GT1020-LBL GT1020-LBLW
Input power supply voltage	24VDC (+10%, -15%), ripple voltage of 200mV or less							5VDC (±5%), supplied from PLC communication cable
Input frequency	–							
Input maximum voltampere	–							
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)	2.2W or less (90mA/24VDC)	1.9W or less (80mA/24VDC)	1.1W or less (220mA/5VDC)
With backlight off	4.32W or less (180mA/24VDC)		5.04W or less (210mA/24VDC)			1.7W or less (70mA/24VDC)	1.2W or less (50mA/24VDC)	0.6W or less (120mA/5VDC)
Inrush current	15A or less (2ms, at max. load)		26A or less (4ms, at max. load)			18A or less(26.4VDC) 1ms	13A or less(26.4VDC) 1ms	–
Permissible instantaneous failure time	Within 5ms		Within 10ms			Within 5ms		–
Noise resistance	Noise width 1µs, and noise frequency 30 to 100Hz, by noise simulator with noise voltage 1000Vp-p		Noise width 1µs, and noise frequency 25 to 60Hz, by noise simulator with noise voltage 500Vp-p			Noise width 1µs, and noise frequency 30 to 100Hz, by noise simulator with noise voltage 1000Vp-p		
Withstand voltage	500VAC for 1 minute between power supply terminal and ground for 1 minute							–
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					0.14 to 1.0mm² (twisted wire), 0.14 to 1.5mm² (solid wire)		
Clamp terminal	Clamp terminals for M3 screw RAV1.25-3, V2-N3A, FV2-N3A※1					AI2.5-6BU, AI0.34-6TQ and AI0.5-6WH (made by Phoenix Contact)		
Tightening torque (terminal block's terminal screws)	0.5 to 0.8 [N·m]※1					0.22 to 0.25 [N·m]		
Grounding	–					Class D grounding (100Ω or less) When the unit cannot be grounded, ground it to the panel.		–

※ : Excluding GT115□HS

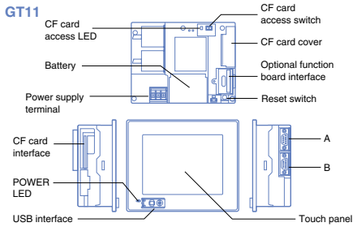
Performance specifications

Item		Specification							
		GT1030-LBD	GT1030-LBDW	GT1030-LBD2	GT1030-LBDW2	GT1020-LBD GT1020-LBL	GT1020-LBDW GT1020-LBLW	GT1020-LBD2	GT1020-LBDW2
Display	Type	STN monochrome (black and white) LCD							
	Screen size	4.5"				3.7"			
	Resolution	288 × 96 [dots]				160 × 64 [dots]			
	Display size	109.42(W) × 35.98(H) [mm]				86.4(W) × 34.5(H) [mm]			
	Number 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 display mode)			
	Display colors	Monochrome (black and 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				–			
	Life※1	Approx. 50,000 hours (Time after which 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 (on/blinking/off) control is possible. Screen save time can be set.							
Touch panel	Type	Matrix resistive type				Analog resistive type			
	Number 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				Simultaneous pressing of more than one key is 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※2	Built-in flash ROM for saving project data (1.5 Mbytes or less), OS				Built-in flash ROM for saving project data (512 Kbytes or less), OS, alarm history, 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)				–			
Built-in interface	For communication with PLC	RS-422, 1ch, Transmission speed: 115200/ 57600/38400/19200/9600/4800 bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		RS-232, 1ch, Transmission speed: 115200/ 57600/38400/19200/9600/4800 bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		RS-422, 1ch, Transmission speed: 115200/ 57600/38400/19200/9600/4800 bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		RS-232, 1ch, Transmission speed: 115200/ 57600/38400/19200/9600/4800 bps, Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC	
	For communication with personal computer	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800 bps, 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		0.3 [kg] (excl. fittings)				0.2 [kg] (excl. fittings)			
Screen design software		GT Designer2 Version 2.58L or later							

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.

Component names

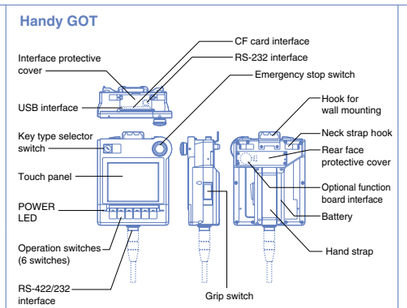
GT11



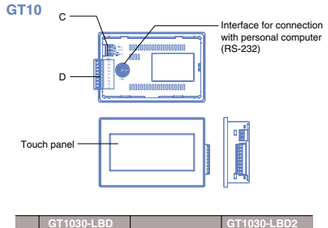
	GT115□-Q□BD	GT115□-Q□BDQ GT115□-Q□BDA
A	RS-232 interface	Bus interface
B	RS-422 interface	RS-232 interface

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

Handy GOT



GT10



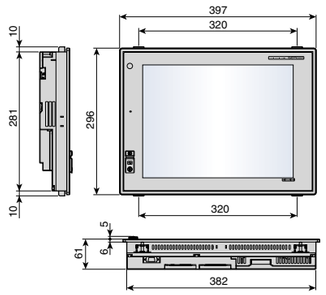
	GT1030-LBD GT1020-LBD GT1030-LBDW GT1020-LBDW	GT1020-LBL GT1020-LBLW	GT1030-LBD2 GT1020-LBD2 GT1030-LBDW2 GT1020-LBDW2
C	Power supply terminal	–	Power supply terminal
D	RS-422 interface	RS-422 interface, power supply terminal	RS-232 interface

GOT main unit

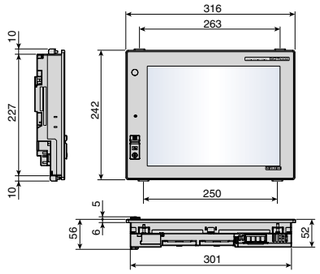
External dimensions

(Unit: mm)

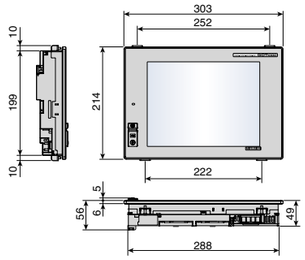
GT1595



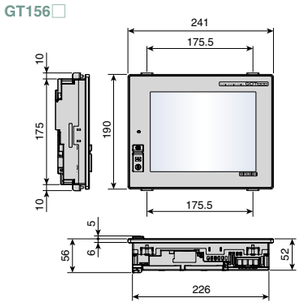
GT1585



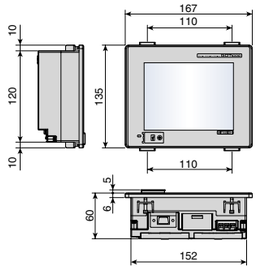
GT157□



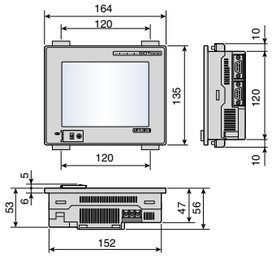
GT156□



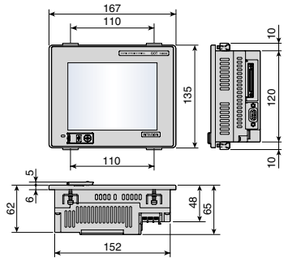
GT155□



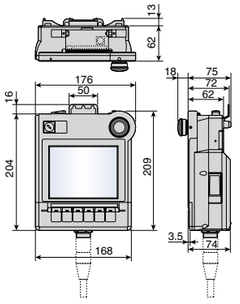
GT115□-Q□BD



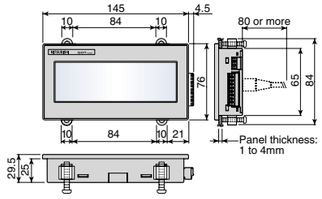
GT115□-Q□BDQ
GT115□-Q□BDA



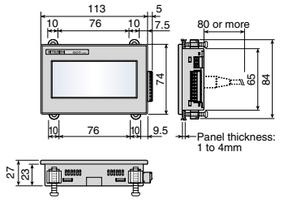
Handy GOT



GT1030



GT1020



Panel cut dimensions

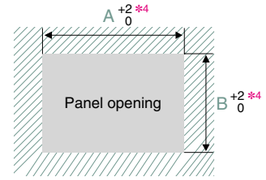
●When GOT is installed

(Unit: mm)

Screen size	Type of GOT main unit	A	B
15"	GT1595	383.5	282.5
12.1"	GT1585※1	302	228
10.4"	GT157□※2	289	200
8.4"	GT156□	227	176
5.7"	GT155□※3	153	121
5.7"	GT115□※3		
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 GT10, the tolerances are +1/0.

For compatibility with GOT900 series, see "Forward compatibility" (page 59).



●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 GOT. Place the CF card extension unit at a distance of 25mm or more from GOT.
For installation locations, see the GT15 User's Manual.

Product installation interval

Keep the following distances between the GOT and structural objects and other devices.

●GT15

(Unit: mm)

	Item	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	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 is installed (GT15-J61BT13)	50 or more (20 or more)				50 or more (32 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 (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 video input unit is installed	–	50 or more (20 or more)※2		–	–
	RGB input unit	–	50 or more (20 or more)※3		–	–
	Video/RGB input unit					
	RGB output unit					
	CF card unit	50 or more (20 or more)		50 or more (31 or more)	50 or more (36 or more)	65 or more
	CF card extension unit					
	External input/output unit					
	Audio output unit					
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.

●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 the dimension A (dimension D for GT10) shown above may be required.

●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)

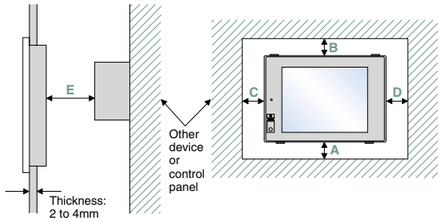
※1 : 50 or more (20 or more) in the case of vertical installation
※2 : 80 or more (20 or more) in the case of vertical installation

●GT10

(Unit: mm)

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

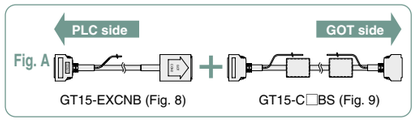
※1 : 50 or more when an RS-232/USB conversion adapter is used
※2 : 80 or more when a personal computer connection cable is used or when a personal computer RS-232 interface is used for connecting multiple GOTs
50 or more when an RS-232 interface is used for using an RS-232/USB conversion adapter



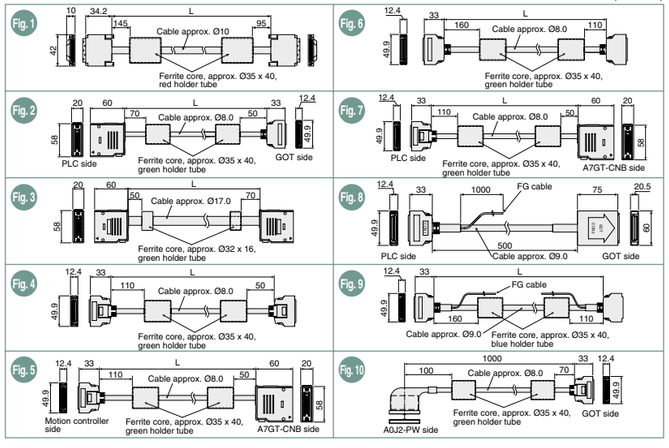
Bus connection cables

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 and 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.)



(Unit: mm)



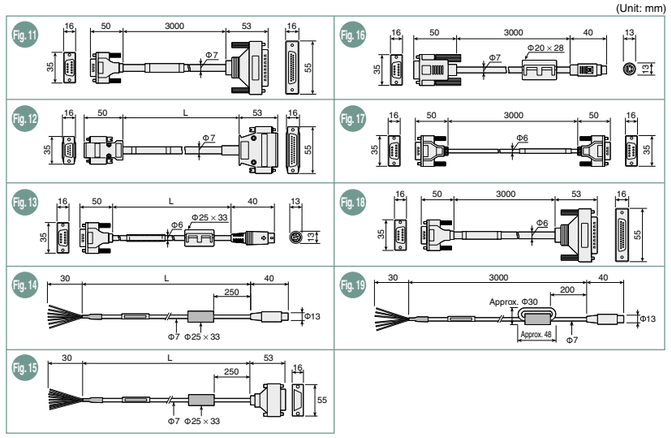
RS-422 cables

Cable model name	Cable length	External dimensions
GT01-C30R4-25P	3m	Fig. 11
GT01-C□R4-25P	10, 20, 30m	Fig. 12
GT01-C□R4-8P	1, 3, 10, 20, 30m	Fig. 13
GT10-C□R4-8P	1, 3, 10, 20, 30m	Fig. 14
GT10-C□R4-25P	3, 10, 20, 30m	Fig. 15

RS-232 cables

Cable model name	Cable length	External dimensions
GT01-C30R2-6P	3m	Fig. 16
GT01-C30R2-9S	3m	Fig. 17
GT01-C30R2-25P	3m	Fig. 18
GT10-C30R2-6P	3m	Fig. 19

(Unit: mm)



Communication units/optional units

Communication units/bus extension connector boxes

Product name			Model name	External dimensions
Bus connection unit	Standard model of bus connection unit for QCPU (Q mode)/motion controller CPU (Q Series)	1ch	GT15-QBUS	Fig. 20
		2ch	GT15-QBUS2	Fig. 21
	Standard model of bus connection unit for QnA/ACPU/motion controller CPU (A Series)	1ch	GT15-ABUS	Fig. 20
		2ch	GT15-ABUS2	Fig. 21
	Thin model of bus connection unit for QCPU (Q mode)/motion controller CPU (Q Series)	1ch	GT15-75QBUSL	Fig. 22
		2ch	GT15-75QBUS2L	Fig. 22
	Thin model of bus connection unit for QnA/ACPU/motion controller CPU (A Series)	1ch	GT15-75ABUSL	Fig. 22
		2ch	GT15-75ABUS2L	Fig. 22
Serial communication unit	RS-232 serial communication unit (D-sub 9-pin (male))		GT15-RS2-9P	Fig. 23
	RS-422/485 serial communication unit (D-sub 9-pin (female))		GT15-RS4-9S	Fig. 23
	RS-422/485 serial communication unit (terminal block)		GT15-RS4-TE	Fig. 24
RS-422 conversion unit	RS-232-->RS-422 conversion unit (9-pin)		GT15-RS2T4-9P	Fig. 25
	RS-232-->RS-422 conversion unit (25-pin)		GT15-RS2T4-25P	Fig. 25
Bus extension connector box			A9GT-QCNB	Fig. 26
Bus connector conversion box			A7GT-CNB	Fig. 27
MELSECNET/H communication unit	Optical loop unit		GT15-J71LP23-25	Fig. 28
	Coaxial bus unit		GT15-J71BR13	Fig. 29
CC-Link communication unit	Intelligent device station unit		GT15-J61BT13	Fig. 30
Ethernet communication unit			GT15-J71E71-100	Fig. 31

Optional units

Product name	Model name	External dimensions
Printer unit	GT15-PRN	Fig. 32
Video input unit	GT15V-75V4	Fig. 33
RGB input unit	GT15V-75R1	Fig. 33
Video/RGB input unit	GT15V-75V4R1	Fig. 33
RGB output unit	GT15V-75ROUT	Fig. 33
CF card unit	GT15-CFCD	Fig. 34
CF card extension unit	GT15-CFEX-C08SET	Fig. 35
Audio output unit	GT15-SOUT	Fig. 36
External input/output unit	GT15-DIO	Fig. 37
Handy GOT connector conversion box	GT11H-CNB-37S	Fig. 38

(Unit: mm)

*1 : The connector shape varies depending on the model.
*2 : Dimensions A to E for each communication unit

Model name	A	B	C	D	E
GT15-QBUS	2.3	0.5	12	31.5	–
GT15-QBUS2	2.5	3.0	11	29	33.5
GT15-ABUS	4.5	0.8	15	29.5	–
GT15-ABUS2	4.5	3.0	11	31	31

*3 : Dimension X when GOT is installed

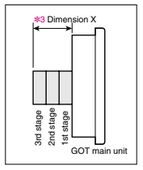
	1st	2nd	3rd
15" and 10.4"	21	42.5	64.5
12.1"	18	39.5	61.5
8.4" and 5.7"	23	44.5	66.5

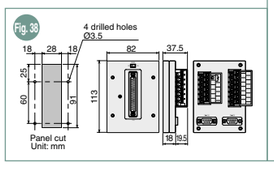
*4 : Dimension A for each communication unit

Model name	A
GT15-75QBUSL	2.3
GT15-75QBUS2L	2.3
GT15-75ABUSL	3.9
GT15-75ABUS2L	3.9

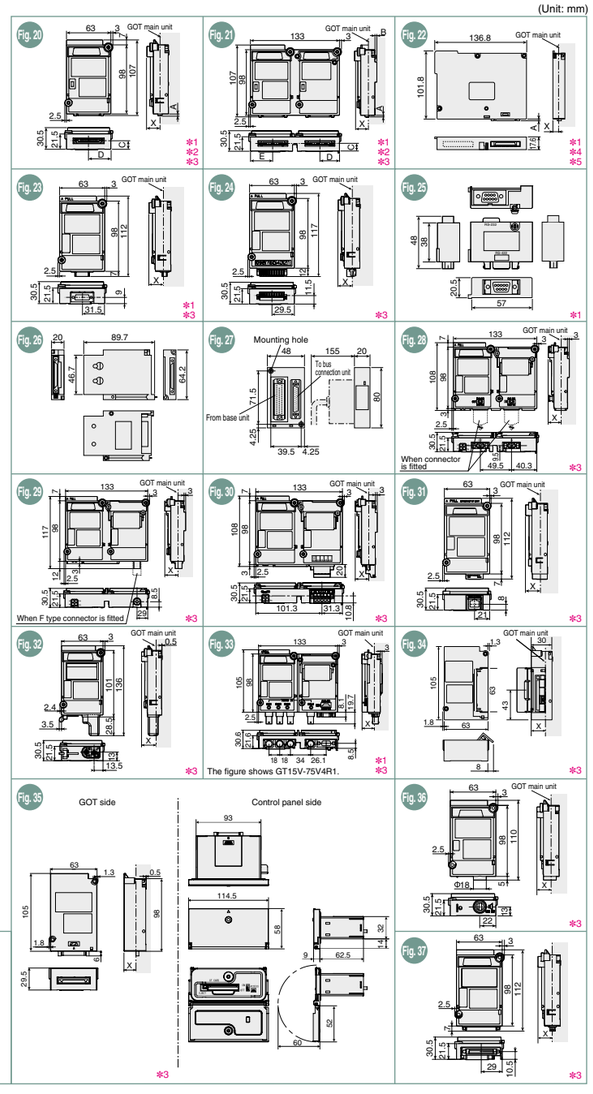
*5 : Dimension X when GOT is installed

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





(Unit: mm)



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

When using the GT15

When using optional functions & extended functions

To use the optional functions marked with *3 shown in Table A, the GT15-QFNB(□M) or GT15-MESB48M must be mounted.
To use the optional functions marked with *6 shown in Table A, the GT15-MESB48M must be mounted.
Since the following GOT model has a built-in optional function board (GT15-FNB), it is unnecessary to mount an optional function board to use the optional functions other than *3 and *6.
•GT15: Version D or later*
* To activate the built-in optional function board, install the standard monitor OS of the GT Designer2 Version 2.58L or later.
Note that installation of the OS for some functions will decrease the free space in the user area.
Check the user area size necessary for the optional function OS and extended function OS in Table A. If the free space in the user area is insufficient, select an optional function board with expansion memory (GT15-QFNB□M or GT15-MESB48M).

Selection according to required space in user area

If the total amount of data to be stored in the user area exceeds the standard memory capacity*1, mount a CF card and an optional function board with expansion memory (GT15-QFNB□M or GT15-MESB48M).

● Selecting a CF card

Select a CF card with a larger capacity than the total amount of data to be stored in the user area.*2

● Selecting optional function boards with expansion memory

Select an optional function board with expansion memory with a larger capacity than [total amount of data to be stored in the user area] - [standard memory capacity.]*2

The following data are stored in the user area. For more details on the data amount, see the GT Designer2 Version2 Basic Operation /Data Transfer Manual.
•Project data •Extended function OS •Optional function OS
•Special data •2nd and subsequent communication drivers •Buffering data
(Ensure that the total amount of the extended function OS, optional function OS, special data and 2nd and subsequent communication drivers is less than the standard memory capacity.)

The CF card can be used for the following GT15 functions.
•Data transfer (usable also on GT11) •Advanced recipe •Historical trend graph
•Parts movement •Advanced alarm •Recipe (usable also on GT11) •Parts display
•Hardcopy •Alarm history (usable also on GT11) •Logging •Report*
•Memory expansion* •Operation log* •Document display* •Backup/restoration*
•Ladder monitor
A CF card is always required to use the functions marked with asterisk (*).

【Table A】

Function			User area size to be used (KB) GT15	GT11
Extended functions	Barcode		84	*5
	System monitor		746	*5
	Report		235	None
	Printer		1104	None
	Operation log (device name conversion library)		800	None
	Stroke font	Stroke font support function	400	None
		Stroke basic font (Japanese)	2160	None
		Stroke basic font (Japanese) (with Hangeul)	3175	None
		Stroke basic font (Chinese, Simplified)	1474	None
		Stroke basic font (Chinese, Simplified) (with Hangeul)	2016	None
	Video display / RGB display	Video/RGB	512	None
	Backup/restoration		820	None
	Operator authentication		784	None
	Audio output		200	None
	External I/O, operation panel		100	None
Optional functions	Maintenance time notification function			*4 None
	Multi-channel*3			*4 None
	Kanji region	Standard font (Chinese, Simplified)	1280	None
		Standard font (Chinese, Traditional)	1920	None
		Standard font (Japanese)	1280	None
		Stroke font (Japanese)	1037	None
		Stroke font (Chinese, Simplified)	1248	None
		Stroke font (Chinese, Traditional)	1680	None
	Operation log		1218	None
	Document display*3		2048	None
	Kana-Kanji conversion		1223	None
	Historical trend graph			*4 None
	Logging		740	None
	Recipe		100	*5
	Advanced recipe		1241	None
	Object script		360	None
	Ladder monitor	MELSEC-A ladder monitor	523	None
		MELSEC-FX ladder monitor	592	None
		MELSEC-Q/QnA ladder monitor*3	1082	None
	A list editor	MELSEC-A list editor	1058	*5
	FX list editor	MELSEC-FX list editor	1058	*5
	Intelligent unit monitor		384	None
	Network monitor		324	None
	Q motion monitor		607	None
	Servo amplifier monitor		524	None
	CNC monitor		588	None
	Gateway	Gateway (server, client)	100	None
		Gateway (mail)	100	None
		Gateway (FTP)	64	None
	MES interface*6		3196*6	None

*1 : The standard memory capacity (built-in flash memory in C drive) varies depending on the model. For the details, see Specifications (page 52).
*2 : Approximate standard
*3 : GT15-FNB does not support the multi-channel function, MELSEC-Q/QnA ladder monitor function and document display function. These functions require GT15-QFNB(□M) or GT15-MESB48M.
*4 : Installation of the optional function OS is not required.
*5 : Requires installation of the optional function OS and extended function OS, but does not use the user area.
*6 : Use GT15-MESB48M for the MES interface function.
8218KB out of the expansion memory (48MB) of GT15-MESB48M will be used for operation of the MES interface function.

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
•GT115□HS-Q□BD: Version B or later
•GT115□-Q□BD: Version C or later

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 the details, see the Project Data Conversion Summary (JY997D1761).

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

Cables

Bus connection cables

The bus connection cables for the GOT900 series cannot be used for the GOT1000 series.
The bus connection cables for the GOT1000 series cannot be used for the GOT900 series.

RS-422 and RS-232 cables

The RS-422 and RS-232 cables for the GOT900 series cannot be used for the GOT1000 series.
The RS-422 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□ differ 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.

To use the multi-channel function <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 (built in RS-232 interface).

Acceptable combinations

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

①Bus connection or network connection*1 + serial connection*2
②Serial connection only

*1 : Network connections include the following connection configurations.
• MELSECNET/H connection • MELSECNET/10 connection • CC-Link connection
• Ethernet connection
*2 : Serial connections include the following connection configurations.
• CPU direct connection • Computer link connection • CC-Link connection (via G4)
• Microcomputer connection • Third party PLC connection
• Temperature controller connection • Inverter connection • Servo amplifier connection
• CNC connection (CPU direct 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 a communication unit on the extension unit interface to use the unit in combination with the standard interface (built-in RS-232 interface). The number of mountable units and mounting stages vary depending on the GOT model. See the following table.

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

		GT1595/GT1585 GT157□/GT156□	GT155□	Description
(1)	Number of connectable channels	Up to 4 channels	Up to 2 channels	The number of communication ports (communication units and standard 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 other functions than communication with the connected device *3, the unit is not included in the number of connected channels. • When the standard interface is used to connect with a peripheral device *4, the interface is not included in the number of connected channels. ☞ See "Calculation of current consumed by units <G15>" (page 61).
	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 *5 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 <G15>" (page 61).
(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 *6 *7 must be mounted on the first stage. • When any units in *7 is used, mount the unit on the first stage, then mount other units on the second or subsequent stages. • Units in *8 cannot be stacked on other units. Mount any of the units on the first stage. ☞ See "External dimensions" (page 56) and "Mounting units on the GOT side interface <GT15>" (page 60).

*3 : Ethernet download function, gateway function and MES interface function
*4 : Barcode function, FA transparent function, OS installation and project data download
*5 : GT15-RS2-9P, GT15-RS4-9S and GT15-RS4-TE
*6 : GT15-QBUS2, GT15-ABUS2, GT15-J71LP23-25, GT15-J71BR13, GT15-J61BT13
*7 : GT15V-75V4, GT15V-75R1, GT15V-75V4R1, GT15V-75ROUT
*8 : GT15-75QBUSL, GT15-75QBUS2L, GT15-75ABUSL, GT15-75ABUS2L, GT15-75J71LP23-Z, GT15-75J71BR13-Z, GT15-75J61BT13-Z

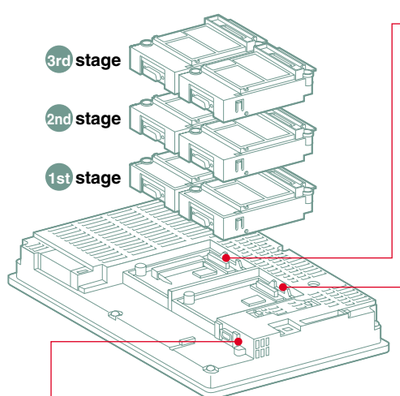
Communication driver

A communication driver must be installed for each of the connection configuration. Communication drivers for the second and subsequent channels will be installed in the user area.

Optional function board

To use the multi-channel function, an optional function board with expansion memory is necessary. Use the optional function board GT15-QFNB(□M) or GT15-MESB48M. GT15-FNB cannot be used.

Mounting units on the GOT side interface <GT15>



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.

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

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

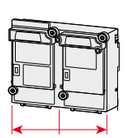
● GT15-75QBUSL, GT15-75QBUS2L, GT15-75ABUSL, GT15-75ABUS2L
● GT15-75J71LP23-Z, GT15-75J71BR13-Z, GT15-75J61BT13-Z (GT155□ must not be used.)

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.

Calculation of current consumed by units <GT15>

When using multiple units and a barcode reader, the total current consumed by the units and barcode reader must be less than the current that can be supplied by 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)
GT1595	2.13
GT1585 (incl. GT1585V)	1.74
GT157□ (incl. GT1575V)	2.2
GT156□	2.2
GT155□	1.3

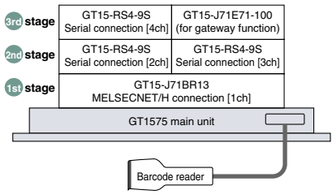
(2) Current used by each unit and barcode reader

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-J71LP23-25	0.56
GT15-J71BR13	0.77
GT15-J61BT13	0.56
Barcode reader	*2
GT15-PRN	0.09
GT15V-75V4R1, GT15V-75V4, GT15V-75R1	0.2 *1
GT15V-75ROUT	0.11
GT15-CFCD	0.07
GT15-CFEX-C08SET	0.15
GT15-SOUT	0.08
GT15-DIO	0.1

*1 : The current consumed by a single unit is as follows. However, calculation of current in terms of multi-channel function, use the above value.
• GT15-QBUS, GT15-QBUS2, GT15-75QBUSL, GT15-75QBUS2L : 0.44A
• GT15V-75V4R1 : 0.95A
• GT15V-75V4 : 0.7A
• GT15V-75R1 : 0.91A
*2 : When using a barcode reader to which the power is supplied from the standard interface, add the current to be used by the barcode reader at 5VDC. (Maximum less than 0.3A)

(3) Calculation example

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



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

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

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, Chinese, Korean, German versions)	Microsoft® Windows® XP Professional Operating System (English, Chinese, Korean, German versions)*1 *2 Microsoft® Windows® XP Home Edition Operating System (English, Chinese, Korean, German versions)*1 *2
		Microsoft® Windows® Millennium Edition Operating System(English, Chinese, Korean, German versions)	
		Microsoft® WindowsNT® Workstation 4.0 Operating System(English, Chinese, Korean, German versions)*2	
		Microsoft® Windows® 2000 Professional Operating System(English, Chinese, Korean, German versions)*2	
CPU		Pentium® 200MHz or higher	Pentium Ⅱ® 300MHz or higher
Required memory		64MB or more	128MB or more
Free hard disk space	For installation	500MB or more	
	For operation	100MB or more	
Disk drive		CD-ROM disk drive	
Display colors		High color (16 bits) or more	
Display*3		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 : The following function are not supported: Compatible Mode, Fast User Switching, Desktop Theme (Font) Change, Remote Desktop.
*2 : Administrator authority is required to install GT Designer2 on the following systems: Windows NT® Workstation 4.0, Windows® 2000 Professional, Windows® XP Professional, Windows® XP Home Edition; Administrator authority is required to operate GT Designer2 on Windows® XP Professional and Windows® XP Home Edition.
*3 : To use the MES interface function, the display must have a resolution of 1024 × 768 dots or more.

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, Chinese, Korean, German versions)	Microsoft® Windows® XP Professional Operating System (English, Chinese, Korean, German versions)*3 *4 Microsoft® Windows® XP Home Edition Operating System (English, Chinese, Korean, German versions)*3 *4
		Microsoft® Windows® Millennium Edition Operating System(English, Chinese, Korean, German versions)	
		Microsoft® WindowsNT® Workstation 4.0 Operating System(English, Chinese, Korean, German versions)*2 *3	
		Microsoft® Windows® 2000 Professional Operating System(English, Chinese, Korean, German versions)*3	
CPU		Pentium® 200MHz or higher	Pentium Ⅱ® 300MHz or higher
Required memory		64MB or more	128MB or more
Free hard disk space*1	For installation (product only)	250MB or more (for product operation and manual reference: 400MB or more)	
	For operation	200MB or more	
Disk drive		CD-ROM disk drive	
Display colors		For GT15 simulator: 65536 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	
	For use of GX Simulator	The following version of GX Simulator is required depending on the CPU to be simulated.*6	

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

*1 : A separate available space is required when using GT Designer2, GX Developer and GX Simulator.
*2 : Use WindowsNT® Workstation 4.0 with Service Pack3 or later installed.
*3 : Administrator authority is required to install GT Simulator2 on the following operating systems.
• WindowsNT® Workstation 4.0 • Windows® 2000 Professional
• Windows® XP Professional • Windows® XP Home Edition
Administrator authority is also required to use GT Simulator2 on the following operating systems.
• Windows® XP Professional • Windows® XP Home Edition
*4 : The following functions are not supported.
• Compatible Mode • Fast User Switching • Desktop Theme (Font) Change • Remote Desktop
*5 : Use the GT Designer2 included in the same GT Works2 as GT Simulator2.
*6 : Use GT Simulator2, GX Developer and GX Simulator of the same language version.

Function list

Category	Function※1		Optional function board ※2	Extended/optional function OS installation ※2	Other necessary devices ※3	Details page	Model: GT15 GT1595-XTB□ XGA 15"	GT1585(V)-STB□ SVGA 12.1"	GT1575(V)-STB□ SVGA 10.4"	GT1575-VTB□ VGA 10.4"	GT157□-VNB□ VGA 10.4"	GT1565-VTB□ VGA 8.4"	GT1562-VNB□ VGA 8.4"	GT155□-□□BD VGA/QVGA 5.7"	GT11 GT115□-Q□BD QVGA 5.7"	GT115□-Q□BD QVGA 5.7"	GT115□-HS-Q□BD QVGA※4 5.7"	GT10※4 GT1030-LBD(W)(2) 4.5"	GT1020-LB□(W)(2) 3.7"	GT SoftGOT1000 Version2 ※4
Connection configuration	Bus connection					P.48~	●	●	●	●	●	●	●	●	—	●	—	—	—	—
	CPU direct connection						●	●	●	●	●	●	●	●	●	—	●	●	●	●
	Computer link connection						●	●	●	●	●	●	●	●	●	—	●	●	●	●
	MELSECNET/H connection						●	●	●	●	●	●	●	●	—	—	—	—	—	●
	MELSECNET/10 connection						●	●	●	●	●	●	●	●	—	—	—	—	—	●
	CC-Link connection (ID station/via G4)						●	●	●	●	●	●	●	●	● Via G4 only	—	● Via G4 only	—	—	—
	Ethernet connection						●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Third party PLC connection						●	●	●	●	●	●	●	●	●	—	●	●	●	●
	Microcomputer connection						●	●	●	●	●	●	●	●	●	—	●	●	●	—
	Temperature controller connection						●	●	●	●	●	●	●	●	●	—	●	—	—	—
	Inverter connection						●	●	●	●	●	●	●	●	●	—	●	—	—	—
	Servo amplifier connection					P.20, 48~	●	●	●	●	●	●	●	●	●	—	●	—	—	—
	CNC connection	CPU direct connection					●	●	●	●	●	●	●	●	●	—	●	—	—	●
		MELSECNET/10 connection					●	●	●	●	●	●	●	●	—	—	—	—	—	●
		CC-Link (ID station) connection					●	●	●	●	●	●	●	●	—	—	—	—	—	—
		Ethernet connection					●	●	●	●	●	●	●	●	—	—	—	—	—	●
Hardware specifications	Memory: Standard memory capacity					P.18, 52~	9MB	9MB	9MB	9MB	5MB	9MB	5MB	9MB	3MB	3MB	3MB	1.5MB	512KB	57MB
	Memory: Total memory capacity when using optional memory (standard + optional)		Required		CF card		Up to 57MB	Up to 57MB	Up to 57MB	Up to 57MB	Up to 53MB	Up to 57MB	Up to 53MB	Up to 57MB	—	—	—	—	—	—
	Display colors: 65536 colors					P.52~	●	●	●	●	—	●	—	● GT1555-□TBD only	—	—	—	—	—	●
	Display colors: 4096 colors						—	—	—	—	—	—	—	● GT1555-QSBD only	—	—	—	—	—	—
	Display colors: 256 colors						—	—	—	—	● GT1575-VNB□only	—	—	—	● GT1155-QSBD only	● GT155-QBDQA only	● GT1155 HS-QSBD only	—	—	—
	Display colors: 16 colors						—	—	—	—	● GT1572-VNB□only	—	●	—	—	—	—	—	—	—
	Display colors: Monochrome (black/white) 16 gray scales						—	—	—	—	—	—	—	● GT1550-QLBD only	● GT1150-QLBD only	● GT150-QLBDQA only	● GT1150 HS-QLBD only	—	—	—
	Display colors: Monochrome (black/white) 2 colors						—	—	—	—	—	—	—	—	—	—	—	●	●	—
	Resolution: 1280 × 1024 dots						—	—	—	—	—	—	—	—	—	—	—	—	—	●
	Resolution: 1024 × 768 dots (XGA)						●	—	—	—	—	—	—	—	—	—	—	—	—	●
	Resolution: 800 × 600 dots (SVGA)						—	●	●	—	—	—	—	—	—	—	—	—	—	●
	Resolution: 640 × 480 dots (VGA)						—	—	—	●	●	●	●	● GT1555-VTBD only	—	—	—	—	—	●
	Resolution: 320 × 240 dots (QVGA)						—	—	—	—	—	—	—	●	●	●	●	—	—	—
	Resolution: 288 × 96 dots						—	—	—	—	—	—	—	—	—	—	—	●	●	—
	Resolution: 160 × 64 dots						—	—	—	—	—	—	—	—	—	—	—	—	●	—
	Built-in interface: RS-232 interface						●	●	●	●	●	●	●	●	●	●	●	●	●	—
	Built-in interface: RS-422 interface					P.32~ P.52~	※5	※5	※5	※5	※5	※5	※5	—	●	—	—	● GT1030-LBD(W) only	● GT1020-LBD(W) only	—
	Built-in interface: RS-422/232 interface						—	—	—	—	—	—	—	—	—	—	●	—	—	—
	Built-in interface: Bus interface						—	—	—	—	—	—	—	—	—	●	—	—	—	—
	Built-in interface: USB interface						●	●	●	●	●	●	●	●	●	●	●	—	—	—
	Built-in interface: CF card interface						●	●	●	●	●	●	●	●	●	●	●	—	—	—
	Built-in interface: Optional function board interface						●	●	●	●	●	●	●	●	●	—	●	—	—	—
	Built-in interface: Extension unit interface					P.52~	● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 2ch	● 1ch	—	—	—	—	—	—
	Built-in interface: Video/RGB interface						—	● GT1585V only	● GT1575V only	—	—	—	—	—	—	—	—	—	—	—
	Other: Vertical display						—	—	—	—	—	—	—	—	●	●	—	●	●	—
	Other: Clock function				(Battery)		●	●	●	●	●	●	●	●	●	●	●	●	※9	●
	Other: Buzzer output					P.52~	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Other: Human sensor						●	●	—	—	—	—	—	—	—	—	—	—	—	—
	Other: Printer			Required	Printer unit	P.20	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Other: CF card unit (CF card extension unit)				CF card unit/ CF card extension unit	P.21	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Other: Sound output			Required	Sound output unit		●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Other: External input/output			Required	External input/ output unit		●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Other: Video input/RGB input/RGB output			Required	Video/ RGB unit		—	● GT1585V only	● GT1575V only	—	—	—	—	—	—	—	—	—	—	—
	Other: Backlight OFF detection function					P.38	●	●	●	●	●	●	●	●	●	●	●	—	—	—
	Other: Protective structure					P.52~	●	●	●	●	●	●	●	●	●	●	●	●	●	—
Main unit functions	Boot OS installation				(CF card)		●	●	●	●	●	●	●	●	●	●	●	—	—	—
	OS installation				(CF card)		●	●	●	●	●	●	●	●	●	●	●	●	●	—
	Project data download/upload				(CF card)	P.32~	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Resource data upload				(CF card)		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	FA transparent function						●	●	●	●	●	●	●	●	●	●	● ※6	●	●	—
	Multi-channel function		Required ※2			P.22	● 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.22	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	MES interface function		Required※2	Required	(CF card)	P.23	●	●	●	●	●	●	●	●	—	—	—	—	—	—
Screen design	Specifications: Base screen						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Specifications: Superimposed window display						●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Specifications: Overlap window display						●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Specifications: Dialog window display					P.31	●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Specifications: Supported image data format: BMP image display						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Specifications: Supported image data format: JPEG image display						●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Specifications: Supported image data format: DXF data						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Specifications: Supported image data format: IGES data					P.27	●	●	●	●	●	●	●	●	●	●	●	—	—	●

Category	Function※1		Optional function board ※2	Extended/optional function OS installation ※2	Other necessary devices ※3	Details page	Model: GT15 GT1595-XTB□ XGA 15"	GT1585(V)-STB□ SVGA 12.1"	GT1575(V)-STB□ SVGA 10.4"	GT1575-VTB□ VGA 10.4"	GT157□-VNB□ VGA 10.4"	GT1565-VTB□ VGA 8.4"	GT1562-VNB□ VGA 8.4"	GT155□-□□BD VGA/QVGA 5.7"	GT11 GT115□-Q□BD QVGA 5.7"	GT115□-Q□BD QVGA 5.7"	GT115□-HS-Q□BD QVGA※4 5.7"	GT10※4 GT1030-LBD(W)(2) 4.5"	GT1020-LB□(W)(2) 3.7"	GT SoftGOT1000 Version2 ※4
Screen design	Specifications: Standard fonts (basic)	Japanese, Japanese (supporting European languages), Chinese (Simplified), Chinese (Traditional, supporting European languages)					●	●	●	●	●	●	●	●	●	●	●	●※10	●※10	●
	Specifications: Standard fonts (optional)	Chinese (Simplified)		Required		P.31	●	●	●	●	●	●	●	●	—	—	—	—	—	●
		Chinese (Traditional)		Required			●	●	●	●	●	●	●	●	—	—	—	—	—	●
		Japanese		Required			●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Specifications: High-quality font						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Specifications: TrueType font						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Specifications: Windows® font					P.26	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Specifications: Stroke basic font (extended)			Required			●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Specifications: Stroke font (optional)			Required			●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Common settings: Parts (object + figure) layer function					P.18	●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Common settings: Screen switching						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Common settings: Station No. switching						●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Common settings: Multilingual support function					P.17	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Common settings: Password						●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Common settings: System information						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Common settings: Connected device setting						●	●	●	●	●	●	●	●	●	●	●	●	●	–
	Object setting: Boot logo						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Comment registration					P.17, 28	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Parts registration						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Data operation function						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Offset function						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Security function	Security level authentication					●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Security function	Operator authentication		Required		P.37	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Lamp display						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Touch switch						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Numeric display/input						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Data list display						●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Object setting: ASCII display/input						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Kana-Kanji conversion function			Required			●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Clock display						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Comment display						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Extended alarm monitoring/display				(CF card)	P.34	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Alarm list display						●	●	●	●	●	●	●	●	●	●	●	●※7	●※7	●
	Object setting: Alarm history display				(CF card)		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Parts display				(CF card)		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Parts movement				(CF card)		●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Object setting: Panel meter display						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Level display						●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Object setting: Trend graph						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Historical trend graph※8			Required※	(CF card)	P.36	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Line graph						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Bar graph						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Statistical graph						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Scatter graph						●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Object setting: Status observation function						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Extended recipe function			Required	(CF card)	P.19	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Recipe function			Required	(CF card)		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Time action function						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Object setting: Report function			Required	Printer unit CF card	P.20	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Hardcopy function	File saving in CF card			CF card		●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Hardcopy function	Printing on printer		Required	Printer unit	P.20	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Object setting: Barcode function			Required		P.20	●	●	●	●	●	●	●	●	●	●	—	—	—	—
	Other: Sound output function			Required	Sound output unit		●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Other: External input/output function			Required	External input/ output unit	P.21	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Other: Operation panel function			Required	External input/ output unit		●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Other: Screen call function						●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Other: Operation log function			Required	CF card	P.37	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Other: Document display function	Required※		Required	CF card	P.38	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Other: Logging function			Required	(CF card)	P.36	●	●	●	●	●	●	●	●	—	—	—	—	—	●
	Other: Script function	Project script					●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Other: Script function	Screen script				P.17	●	●	●	●	●	●	●	●	●	●	●	—	—	●
	Other: Script function	Object script		Required			●	●	●	●	●	●	●	●	—	—	—	—	—	●
Maintenance functions	System monitor function			Required		P.41	●	●	●	●	●	●	●	●	●	●	●	—	—	—
	List editor for A			Required		P.39	●	●	●	●	●	●	●	●	●	● GT115□-Q□BDA only	●	—	—	—
	List editor for FX			Required			●	●	●	●	●	●	●	●	●	—	●	—	—	—
	Ladder monitor function	Required※		Required	(CF card)	P.40	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Intelligent unit monitor function			Required			●	●	●	●	●	●	●	● GT1555-VTBD only	—	—	—	—	—	—
	Q motion monitor function			Required			●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Servo amplifier monitor function			Required		P.41	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Network monitor function			Required			●	●	●	●	●	●	●	●	—	—	—	—	—	—
	CNC monitor function			Required			●	●	●	—	—	—	—	●	—	—	—	—	—	—
	Backup/restoration function			Required	CF card	P.39	●	●	●	●	●	●	●	●	—	—	—	—	—	—
	Maintenance time notification function				Battery	P.38	●	●	●	●	●	●	●	●	—	—	—	—	—	—

※1 : The function details, such as the number of settings and the data storage destination, vary depending on the model.
※2 : The need for an optional function board depends on the model and the hardware version of the GOT main unit. In addition, the optional function board that must be used varies depending on the function to be used. For the details, see Notes for use (page 59 and after).
For the GT10 and GT SoftGOT1000, it is not necessary 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.
※4 : For details, see Handy GOT (page 42), GT10 (page 43) and GT SoftGOT1000 (page 46).
※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 : Settings of the logging function are required in order to use the historical trend graph function. In addition, the optional function board and optional function OS (Logging) must be installed.
※9 : Read from the PLC clock.
※10 : Only Japanese fonts (supporting European languages) can be used.

Product list

Main unit model name

GT15 9 5 □ - 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 (black/white)

Code	Mounting type
V	Applicable for video/RGB
None	Panel mount type
HS	Handy type

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
L	STN monochrome

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

GT15	Full-specification model covering a wide range of applications in standalone and network environments
GT11	Standard model with basic functions for standalone use
GT10	Basic model in compact body for use anywhere

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

Code	GT10 backlight
W	White backlight
None	Green backlight

※ 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
GT15	GT1595	GT1595-XTBA	15" XGA [1024 × 768 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors		100-240VAC	9MB	–
		GT1595-XTBD					24VDC		
	GT1585	GT1585V-STBA	12.1" SVGA [800 × 600 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors		100-240VAC	9MB	Applicable for 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)	65536 colors		100-240VAC	9MB	Applicable for Video/RGB
		GT1575V-STBD					24VDC		
		GT1575-STBA		TFT color LCD (high brightness, wide viewing angle)			100-240VAC		–
		GT1575-STBD					24VDC		
		GT1575-VTBA	10.4" VGA [640 × 480 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 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)	65536 colors		100-240VAC	9MB	–
		GT1565-VTBD					24VDC		
		GT1562-VNBA		TFT color LCD	16 colors		100-240VAC	5MB	
		GT1562-VNBD					24VDC		
	GT155□	GT1555-VTBD NEW	5.7" VGA [640 × 480 dots]	TFT color LCD (high brightness, wide viewing angle)	65536 colors		24VDC	9MB	–
		GT1555-QTBD	5.7" QVGA [320 × 240 dots]						
		GT1555-QSBD		STN color LCD	4096 colors				
		GT1550-QLBD		STN monochrome LCD	Monochrome (black/white) 16 gray scales				
GT11	GT1155	GT1155-QTBDQ NEW	5.7" QVGA [320 × 240 dots]	TFT color LCD	256 colors		24VDC	3MB	Dedicated to Q bus connection
		GT1155-QTBDA NEW							Dedicated to A bus connection
		GT1155-QSBD		STN color LCD					–
		GT1155-QSBDQ NEW							Dedicated to Q bus connection
		GT1155-QSBDA NEW							Dedicated to A bus connection
	GT1150	GT1150-QLBD		STN monochrome LCD	Monochrome (black/white) 16 gray scales				–
		GT1150-QLBDQ NEW							Dedicated to Q bus connection
		GT1150-QLBDA NEW							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	GT1030	GT1030-LBD NEW	4.5" [288 × 96 dots]	STN monochrome LCD	Monochrome (black/white)	3-color LED (green, orange, red)	24VDC	1.5MB	Dedicated to RS-422 connection
		GT1030-LBD2 NEW							Dedicated to RS-232 connection
		GT1030-LBDW NEW				3-color LED (white, pink, red)			Dedicated to RS-422 connection
		GT1030-LBDW2 NEW							Dedicated to RS-232 connection
	GT1020	GT1020-LBD	3.7" [160 × 64 dots]	STN monochrome LCD	Monochrome (black/white)	3-color LED (green, orange, red)	24VDC	512KB	Dedicated to RS-422 connection
		GT1020-LBD2							Dedicated to RS-232 connection
		GT1020-LBL					5VDC		Dedicated to RS-422FX connection
		GT1020-LBDW NEW				3-color LED (white, pink, red)	24VDC		Dedicated to RS-422 connection
		GT1020-LBDW2 NEW							Dedicated to RS-232 connection
		GT1020-LBLW NEW					5VDC		Dedicated to RS-422FX connection

Communication interface

Product name	Model name	Specifications		Applicable model 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-422 connector: 25-pin	○ ※4	–	–	–
MELSECNET/H communication unit	GT15-J71LP23-25	Optical loop unit		○	–	–	–
	GT15-J71BR13	Coaxial bus 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/10Base-T) 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 51).
※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 GT15	GT11	Handy GOT	GT10
Printer unit	GT15-PRN	USB slave (PictBridge) for printer connection, 1ch ※Cable for printer connection (3m) included	○	–	–	–
Video input unit	GT15V-75V4	For NTSC/PAL input, 4ch	○ ※5	–	–	–
RGB input unit	GT15V-75R1	For analog RGB input, 1ch	○ ※5	–	–	–
Video/RGB input unit	GT15V-75V4R1	For NTSC/PAL (4ch) and analog RGB (1ch) composite input	○ ※5	–	–	–
RGB output unit	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 NEW	For sound output	○	–	–	–
External input/output unit	GT15-DIO NEW	For external input/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.

Options

Product name	Model name	Specifications		Applicable model GT15	GT11	Handy GOT	GT10
Backlight	GT15-90XLTT	Backlight	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	GT15-FNB	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 59 and after).	(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	○	–
Protective sheet	GT15-90PSCB	Protective sheet for 15" screen	Clear, 5 sheets	○	–	–	–
	GT15-90PSGB		Antiglare, 5 sheets	○	–	–	–
	GT15-90PSCW		Clear (frame: white), 5 sheets	○	–	–	–
	GT15-90PSGW		Antiglare (frame: white), 5 sheets	○	–	–	–
	GT15-80PSCB	Protective sheet for 12.1" screen	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	–	–	○	–
	GT10-30PSCB NEW	Protective sheet for 4.5" screen (for GT1030)	Clear, 5 sheets	–	–	–	○
	GT10-30PSGB NEW		Antiglare, 5 sheets	–	–	–	○
	GT10-30PSCW NEW		Clear (frame: white), 5 sheets	–	–	–	○
	GT10-30PSGW NEW		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 environmentally-protective cover	GT15-UCOV	Environmentally-protective cover for USB interface on main unit front panel (for replacement)	For 15", 12.1", 10.4" and 8.4"	○	–	–	–
	GT11-50UCOV		For 5.7"	○	○	–	–
Protective cover for oil ✻5	GT05-90PCO NEW	Protective cover for oil for 15" screen		○	–	–	–
	GT05-80PCO NEW	Protective cover for oil for 12.1" screen		○	–	–	–
	GT05-70PCO NEW	Protective cover for oil for 10.4" screen		○	–	–	–
	GT05-60PCO NEW	Protective cover for oil for 8.4" screen		○	–	–	–
	GT05-50PCO NEW	Protective cover for oil for 5.7" screen		○	○	–	–
Emergency stop switch guard	GT11H-50ESCOV	For mis-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		○	○	–	–
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		○	○	○	–
Memory card adapter	GT05-MEM-ADPC	CF card → memory card (TYPE Ⅱ) conversion adapter		○	○	○	–
Attachment	GT15-70ATT-98 Coming soon	Attachment for 10.4" type	A985GOT ✻6 → GT157□	○	–	–	–
	GT15-70ATT-87 NEW		A870GOT-SWS, A870GOT-TWS, A8GT-70GOT-TB, A8GT-70GOT-SW, A8GT-70GOT-SB → GT157□	○	–	–	–
	GT15-60ATT-97	Attachment for 8.4" type	A97□GOT → GT156□	○	–	–	–
	GT15-60ATT-96		A960GOT → GT156□	○	–	–	–
	GT15-60ATT-87 NEW		A870GOT-EWS, A870GOT-TWS, A8GT-70GOT-EW, A8GT-70GOT-EB, A77GOT-EL-S5, A77GOT-EL-S3, A77GOT-EL → GT156□	○	–	–	–
	GT15-60ATT-77 NEW		A77GOT-CL-S5, A77GOT-CL-S3, A77GOT-CL, A77GOT-L-S5, A77GOT-L-S3, A77GOT-L → GT156□	○	–	–	–
	GT15-50ATT-95W Coming soon	Attachment for 5.7" type	A956WGOT → GT155□, GT115□	○	○	–	–
	GT15-50ATT-85 NEW		A85□GOT → GT155□, GT115□	○	○	–	–
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 : GT1030 only
✻5 : Check if the oil resistant cover can be used in an actual use 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.

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 Functions Manual	Information on extended functions and optional functions available to GOT	SH-080544ENG
GOT1000 Series Gateway Function Manual	Specifications, system configurations and setting procedures for Gateway function	SH-080545ENG
GOT1000 Series MES Interface Function Manual	Specifications, system configurations and setting procedures for MES interface function	SH-080654ENG
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	JY997D17501A
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	JY997D20101A
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

Cables

Product name		Model name	Cable length	Third party products ✻1	Application	Applicable model ✻2 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 (13.2m or more) connection between QnAS/AnSCPU/motion controller CPU (A series) and GOT For long-distance (13.2m or more) 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 (13.2m or more) bus connection	○	○	–	–
Buffer circuit cable		GT15-EXCNB	0.5m	○	Usable as GT15-C□EXSS-1 in combination with GT15-C□BS	○	○	–	–
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 9-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 –	–
		GT01-C100R4-25P	10m						
		GT01-C200R4-25P	20m						
		GT01-C300R4-25P	30m						
		GT10-C30R4-25P	3m	–	For connection between QnA/FXCPU (D-sub 25-pin connector) and GOT For connection between serial communication unit (AJ71QC24(N)-R4) and GOT	–	–	–	○
		GT10-C100R4-25P	10m						
		GT10-C200R4-25P NEW	20m						
		GT10-C300R4-25P NEW	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	○	○	–	–
		GT09-C100R4-6C	10m						
		GT09-C200R4-6C	20m						
		GT09-C300R4-6C	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 cable can be used when the connector conversion box for the Handy GOT is used.

Cables

Product name		Model name	Cable length	Third party products *1	Application	GT15	GT11	Handy GOT	GT10
						Applicable model *2			
RS-422 cable	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	○	○	–	–
		GT01-C30R4-8P	3m						
		GT01-C100R4-8P	10m						
		GT01-C200R4-8P	20m						
		GT01-C300R4-8P	30m						
		GT10-C10R4-8P	1m			–	–	–	○
		GT10-C30R4-8P	3m						
		GT10-C100R4-8P	10m						
		GT10-C200R4-8P NEW	20m						
		GT10-C300R4-8P NEW	30m						
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)	○	○	–	–
					For connection between personal computer (screen design software) (D-sub 9-pin, female) and GOT (MINI-DIN 6-pin, female)	–	–	○	○
		GT10-C30R2-6P	3m	–	For connection between QCPU and GOT For connection between GOT and GOT	–	–	–	○
		GT11H-C30R2-6P	3m	–	For connector conversion box between QCPU and Handy GOT	–	–	○	–
	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)	○	○	–	–
	FX communication function adapter connection cable, Data transfer cable	GT01-C30R2-25P	3m	–	For connection between FXCPU communication function adapter (D-sub 25-pin connector) and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin) For connection between personal computer (screen design software) (D-sub 25-pin, male) and GOT (D-sub 9-pin, female)	○	○	–	–
	Computer link connection cable	GT09-C30R2-9P	3m	○	For connection between serial communication unit and GOT For connection between computer link unit and GOT	○	○	–	–
		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	–	–	○	–
External I/O unit connection conversion cable		GT15-C30HTB	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)	○	–	–	–
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.)	–	–	–	○
	Data transfer cable	GT09-C30USB-5P	3m	○	For connection between personal computer and GOT For connection between QCPU (USB miniB) and personal computer (GT SoftGOT1000)	○	○	○	○
					For connection between printer and GOT (printer unit)	○	–	–	–

*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.

Cables for third party FA devices

Product name		Model name	Cable length	Third party products *1	GOT connection destination	GT15	GT11	Handy GOT	GT10
						Applicable model *2			
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	–
		GT09-C30R20102-25S	3m		Connection cable: CQM1-CIF01				
		GT09-C30R20103-25P	3m		Base mount type host link unit: C500H-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				
	Cable for JTEKT (former Toyoda Machine Works) PLC	GT09-C30R21201-25P	3m		RS-232/RS-422 converter: TXU-2051				
	Cable for Shinko Technos digital indicating controller NEW	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 NEW	GT09-C30R21301-9S	3m		Communication module: LQE560/LQE060/LQE160				
	Cable for Fuji Electric FA Components & Systems PLC NEW	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				
		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-217F (when connected to CN1)				
		GT09-C30R20204-14P	3m		PLC CPU: MP-940				
		GT09-C30R20205-25P	3m		MEMOBUS module: CP-217IF (when connected to CN2) Yokogawa Electric personal computer module: LC01-0N/LC02-0N				

Cables for third party FA devices

Product name			Model name	Cable length	Third party products *1	GOT connection destination	GT15	GT11	Handy GOT	GT10
							Applicable model *2			
RS-232 cable	Cable for Yokogawa Electric PLC		GT09-C30R20301-9P	3m	○	CPU port/D-sub 9-pin conversion cable: KM10-0C	○	○	*3	–
			GT09-C30R20302-9P	3m		Personal computer module: F3LC11-1N/F3LC11-1F/F3LC12-1F/F3LC11-2N				
			GT09-C30R20304-9S	3m		Converter: ML2-□				
	Cable for Allen-Bradley PLC		GT09-C30R20701-9S	3m		PLC CPU: SL500 series Converter: 1761-NET-AIC				
	Cable for SIEMENS PLC		GT09-C30R20801-9S	3m		HMI adapter				
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				
			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 (former Toyoda Machine Works) 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 NEW		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 NEW		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						
			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						
		Temperature controller	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.

WARRANTY

Please confirm the following product warranty details before using this product.

1. Gratis Warranty Term and Gratis Warranty Range

If any faults or defects (hereinafter "Failure") found to be the responsibility of Mitsubishi occurs during use of the product within the gratis warranty term, the product shall be repaired at no cost via the sales representative or Mitsubishi Service Company.
However, if repairs are required onsite at domestic or overseas location, expenses to send an engineer will be solely at the customer's discretion. Mitsubishi shall not be held responsible for any re-commissioning, maintenance, or testing on-site that involves replacement of the failed module.

[Gratis Warranty Term]

The gratis warranty term of the product shall be for one year 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 eighteen (18) months. The gratis warranty term of repair parts shall not exceed the gratis warranty term before repairs.

[Gratis Warranty Range]

(1) The range shall be limited to normal use within the usage state, usage methods and usage environment, etc., which follow the conditions and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.
(2) Even within the gratis warranty term, repairs shall be charged for in the following cases.
   1. Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
   2. Failure caused by unapproved modifications, etc., to the product by the user.
   3. When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
   4. Failure that could have been avoided if consumable parts (battery, backlight, fuse, etc.) designated in the instruction manual had been correctly serviced or replaced.
   5. Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
   6. Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.
   7. Any other failure found not to be the responsibility of Mitsubishi or that admitted not to be so by the user.

2. Onerous repair term after discontinuation of production

(1) Mitsubishi shall accept onerous product repairs for seven (7) years after production of the product is discontinued.
Discontinuation of production shall be notified with Mitsubishi Technical Bulletins, etc.
(2) Product supply (including repair parts) is not available after production is discontinued.

3. Overseas service

Overseas, repairs shall be accepted by Mitsubishi's local overseas FA Center. Note that the repair conditions at each FA Center may differ.

4. Exclusion of loss in opportunity and secondary loss from warranty liability

Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to 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.

5. Changes in product specifications

The specifications given in the catalogs, manuals or technical documents are subject to change without prior notice.

6. Product application

(1) In using the Mitsubishi graphic operation terminal, the usage conditions shall be that the application will not lead to a major accident even if any problem or fault should occur in the graphic operation terminal device, and that backup and fail-safe functions are systematically provided outside of the device for any problem or fault.
(2) The Mitsubishi graphic operation terminal has been designed and manufactured for applications in general industries, etc.
Thus, applications in which the public could be affected such as in nuclear power plants and other power plants operated by respective power companies, and applications in which a special quality assurance system is required, such as for Railway companies or Public service 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.

Memo

Memo

Memo

Mitsubishi Graphic Operation Terminal

Precautions for Choosing the Products

This catalog explains the typical features and functions of the GOT1000 series HMI and does not provide restrictions and other information on usage and module combinations.
When using the products, always read the user's manuals of the products.
Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; machine damage or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

⚠ For safe use

- To use the products given in this catalog properly, always read the related manuals before starting to use them.
- The products within this catalog have been manufactured as general-purpose parts for general industries and have not been designed or manufactured to be incorporated into any devices or systems used in purpose related to human life.
- Before using any product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi.
- The products within this catalog have been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

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