



**MITSUBISHI
ELECTRIC**

Changes for the Better

for a greener tomorrow



Mitsubishi Graphic Operation Terminal
GOT2000 Series



**GOOD
DESIGN
AWARD
2014**



Your window to better production control

GOT2000

Graphic Operation Terminal

iQ Platform

The Mitsubishi Electric
Graphic Operation Terminal GOT2000 series
continues to impress with solutions
that fulfill all demands.

The GOT2000 boasts advanced functionality, acts as a seamless gateway to other industrial automation devices, all while increasing productivity and efficiency.

The high quality display is designed to optimize operator control and monitoring of device and line statuses. If you are looking for an intuitive operation terminal, the new tablet-like operability and the higher functionality of operation terminal makes the GOT2000 the ideal choice.

Incorporate the GOT2000 to bring forth flexibility, productivity, and quality on a global scale.

Your window to better production control

GOT2000

Graphic Operation Terminal

CONTENTS

04 | *Line up*

Line up

06 | *Features*

Features

H/W Introductions

GOT2000 Features

GT Works3 Features

22 | *Functions*

Functions

An Easy and Flexible
HMI Solution

Powerful Remote
Access Options

Perfectly Complemented
by SoftGOT

34 | *FA Solutions*

FA Solutions

42 | *Specifications*

Specifications

68 | *Product list*

Product list

74 | *Support*

Support



The GOT2000 inherits all the features of our popular GOT1000 series, and introduces a more refined and advanced function set. The powerful and flexible lineup includes GOTs with various features and communication options to tackle any application you may encounter.

GT27

Advanced model with multi-touch gesture functions

Ethernet
RS-232
RS-422/485
Bus
MELSECNET/H
CC-Link IE
CC-Link

15 inch



XGA GT2715-XTBA
GT2715-XTBD | Resolution: 1024x768
Display color: 65536 colors

12.1 inch



SVGA GT2712-STBA
GT2712-STBD
GT2712-STWA
GT2712-STWD | Resolution: 800x600
Display color: 65536 colors

GT25

High performance, cost efficient, mid-range model

Ethernet
RS-232
RS-422/485
Bus
MELSECNET/H
CC-Link IE
CC-Link

12.1 inch **NEW**



SVGA GT2512-STBA
GT2512-STBD | Resolution: 800x600
Display color: 65536 colors

10.4 inch



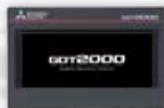
VGA GT2510-VTBA
GT2510-VTBD
GT2510-VTWA
GT2510-VTWD | Resolution: 640x480
Display color: 65536 colors

GT21

Compact model with basic functions

Ethernet
RS-232
RS-422/485

3.8 inch **NEW**



GT2103-PMBD
GT2103-PMBDS | Resolution: 320x128
Display color: Monochrome
(black/white) 32 shade grayscale
Backlight: 5-color LED
(white/green/pink/orange/red)

Compliant with safety standards including UL Standards, shipping standards (to be obtained soon), and radio laws. For inquiries relating to the status of conforming to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

- Multi-touch Gesture
- Multi-media*
- Video/RGB*
- Sound output
- External I/O

* Not supported by 5.7 inch model.

10.4 inch



- SVGA** GT2710-STBA Resolution: 800x600
GT2710-STBD Display color: 65536 colors
- VGA** GT2710-VTBA Resolution: 640x480
GT2710-VTBD Display color: 65536 colors
GT2710-VTWA
GT2710-VTWD

- Sound output
- External I/O

8.4 inch



- SVGA** GT2708-STBA Resolution: 800x600
GT2708-STBD Display color: 65536 colors
- VGA** GT2708-VTBA Resolution: 640x480
GT2708-VTBD Display color: 65536 colors

5.7 inch Coming soon



- VGA** GT2705-VTBD Resolution: 640x480
Display color: 65536 colors

8.4 inch



- VGA** GT2508-VTBA Resolution: 640x480
GT2508-VTBD Display color: 65536 colors
GT2508-VTWA
GT2508-VTWD

GT23

- Ethernet
- RS-232
- RS-422/485

Unchallenged cost performance

10.4 inch

8.4 inch



- VGA** GT2310-VTBA Resolution: 640x480
GT2310-VTBD Display color: 65536 colors



- VGA** GT2308-VTBA Resolution: 640x480
GT2308-VTBD Display color: 65536 colors

SoftGOT Turn your personal computer into a GOT!

GOT2000 compatible HMI software

GT SoftGOT2000 Version1

GT SoftGOT2000 is an HMI software that allows GOT2000 functions to operate on a personal computer or panel computer.

Resolution: 640 to 1920 x 480 to 1200
Display color: 65536 colors

* GT SoftGOT2000 Version1 is included with GT Works3. A separate license key must be mounted during use.



Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GT27

Advanced model with multi-touch gesture functions

- 65K color TFT LCD display available in the following screen sizes: 8.4", 10.4", 12.1" and 15"
- Tablet like gesture functionality and multi-media features create an intuitive user experience
- Communication interfaces such as Ethernet, RS-422/485, USB host/device and SD memory card are standard features
- High capacity data processing ensure smooth screen operation even when multiple tasks, such as logging, script, alarm, or device data transfer, are running



- Display..... 65K color TFT LCD display, 8.4", 10.4", 12.1" and 15"
- Resolution XGA, SVGA, VGA
- Backlight..... White LED
- User memory..... Memory for storage (ROM): 57MB
Memory for operation (RAM): 128MB
- Standard interface..... Ethernet, RS-232, RS-422/485
USB host 2ch (High-Speed 480Mbps) (White model has 1ch)
USB device 1ch (High-Speed 480Mbps)
- Extension interface..... Bus, MELSECNET/H, CC-Link IE, CC-Link

GT27 Standard model

Human sensor

The unit automatically detects an operator approaching the unit and displays the screen. When no one is around, the backlight turns off to save energy.
* 15" and 12.1" only

USB device

Transfer data without opening the cabinet.

USB host

Transfer screen data or read the data to or from the GOT using the USB memory. A USB mouse and keyboard connection is also supported.



Simple design

The stylish and simple design with a linear motif is sleek and complements any machine design.

LED backlight

The long life cycle minimizes maintenance and replacement costs.

Extension interface

Communication and option units can be installed.

Ethernet

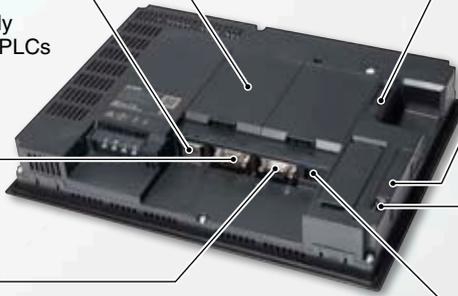
Use Ethernet to simultaneously connect to up to four types of PLCs from different manufacturers.

RS-232

Connect to various industrial devices, barcode readers and serial printers.

RS-422/485

Easily connect to various industrial devices.



SD card slot

Save large volumes of data, including alarms and logging data.

Side interface

Mount a wireless LAN communication module.

USB host

Save the alarm and logging data by connecting a USB memory stick. A USB mouse and keyboard connection is also supported.

USB device

Connect to a personal computer and transfer data.
* The white model only

GT27 White model

* Back side is the same as the standard model

Human sensor

The unit automatically detects an operator approaching the unit and displays the screen. When no one is around, the backlight turns off to save energy.
* 12.1" only

Flat body

The front flat screen is easy to clean. (USB interface is on the back.)



Simple design

In the same way as the standard model, the stylish and simple design with a linear motif is sleek and complements any machine design.

White body

The white model portrays a clean image.

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GT25

High performance, cost efficient, mid-range model

- 65K color TFT LCD display available in the following screen sizes: 8.4", 10.4", and 12.1" **NEW**
- Communication interfaces such as Ethernet, RS-422/485, USB host/device and SD memory card are standard features
- High capacity data processing ensure smooth screen operation even when multiple tasks, such as logging, script, alarm, or device data transfer are running



- Display..... 65K color TFT LCD display, 8.4", 10.4", and 12.1" **NEW**
- Resolution SVGA, VGA
- Backlight..... White LED
- User memory..... Memory for storage (ROM): 32MB
Memory for operation (RAM): 80MB
- Standard interface..... Ethernet, RS-232, RS-422/485
USB host 2ch (High-Speed 480Mbps) (White model has 1ch)
USB device 1ch (High-Speed 480Mbps)
- Extension interface..... Bus, MELSECNET/H, CC-Link IE, CC-Link

GT25 Standard model

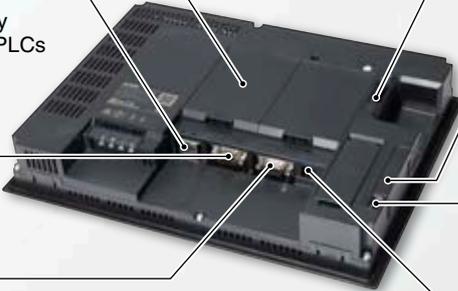


USB device
Transfer data without opening the cabinet.

USB host
Transfer screen data or read the data to or from the GOT using the USB memory. A USB mouse and keyboard connection is also supported.

Simple design
The stylish and simple design with a linear motif is sleek and complements any machine design.

LED backlight
The long life cycle minimizes maintenance and replacement costs.



Extension interface
Communication and option units can be installed.

Ethernet
Use Ethernet to simultaneously connect to up to four types of PLCs from different manufacturers.

RS-232
Connect to various industrial devices, barcode readers and serial printers.

RS-422/485
Easily connect to various industrial devices.

SD card slot
Save large volumes of data, including alarms and logging data.

Side interface
Mount a wireless LAN communication unit.

USB host
Save the alarm and logging data by connecting a USB memory stick. A USB mouse and keyboard connection is also supported.

USB device
Connect to a personal computer and transfer data.
* The white model only

GT25 White model

* Back side is the same as the standard model



Flat body
The front flat screen is easy to clean. (USB interface is on the back.)

Simple design
In the same way as the standard model, the stylish and simple design with a linear motif is sleek and complements any machine design.

White body
The white model portrays a clean image.

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GT23

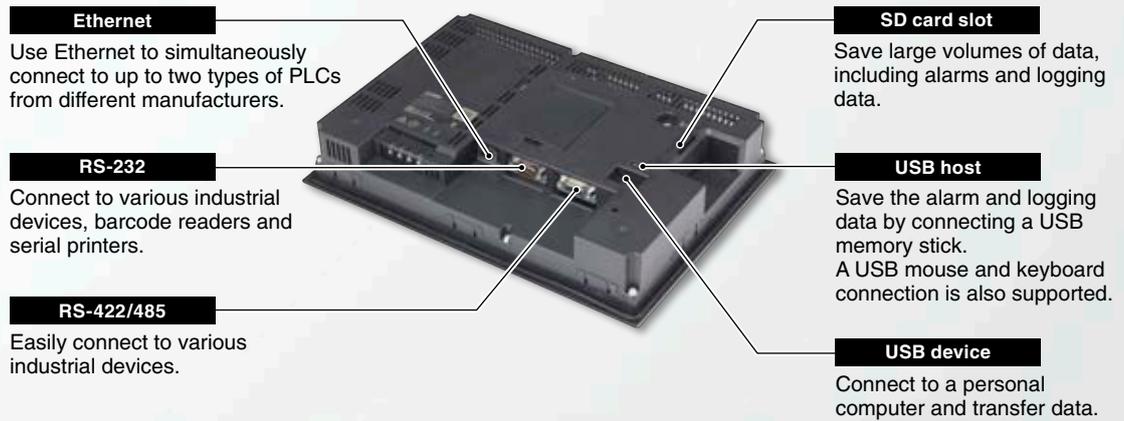
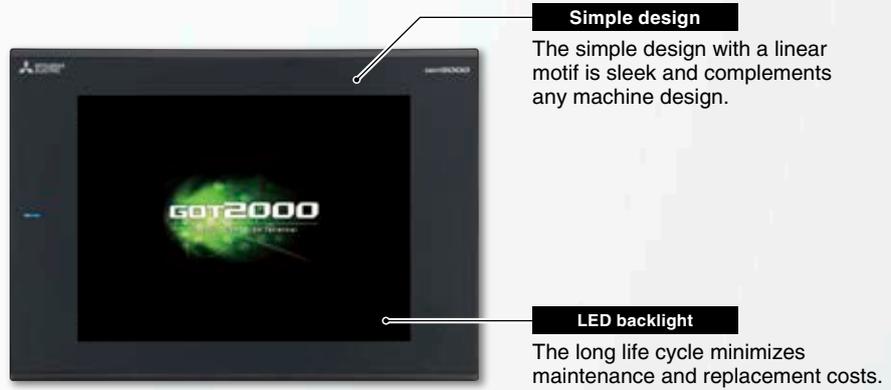
Unchallenged cost performance

- 65K color TFT LCD display available in the following screen sizes: 8.4" and 10.4"
- Communication interfaces such as Ethernet, RS-422/485, USB host/device and SD memory card are standard features
- Advanced features such as data logging, multi-channel communication and FA transparent function are supported



- Display..... 65K color TFT LCD display, 8.4" and 10.4"
- Resolution VGA
- Backlight..... White LED
- User memory..... Memory for storage (ROM): 9MB
Memory for operation (RAM): 9MB
- Standard interface..... Ethernet, RS-232, RS-422/485
USB host 1ch (Full-Speed 12Mbps)
USB device 1ch (Full-Speed 12Mbps)

GT23 Standard model



Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GT21

NEW

Small screen, big possibilities

- Monochrome (black/white), 32 shade grayscale TFT LCD display available in the following screen size: 3.8"
- 320x128 dot high-resolution LCD, four times higher resolution than conventional model (GT1020)
- 5-color LED backlight (white, green, pink, orange, red)
- Ethernet interface (GT2103-PMBD only)
- Advanced features such as data logging, multi-channel communication and FA transparent function are supported



Display.....	Monochrome (black/white), 32 shade grayscale TFT LCD display, 3.8"
Resolution	320x128 dots
Backlight.....	5-color LED (white, green, pink, orange, red)
User memory.....	Memory for storage (ROM): 3MB
Standard interface.....	GT2103-PMBD : Ethernet, RS-422/485
	GT2103-PMBDS : RS-232, RS-422/485
	All models : USB device 1ch
	(Full-Speed 12Mbps)

High-definition LCD with changeable color backlight

GT2103 is equipped with an easy to see, compact high-resolution TFT LCD with 32 gray scales. The intuitively understandable 5-color backlight offers choices of backlight color and backlight blink according to machine operation state.

The backlight can also be controlled from the connected PLC (screen color change and backlight ON/OFF/blink).



Same compact type, but so much clearer!

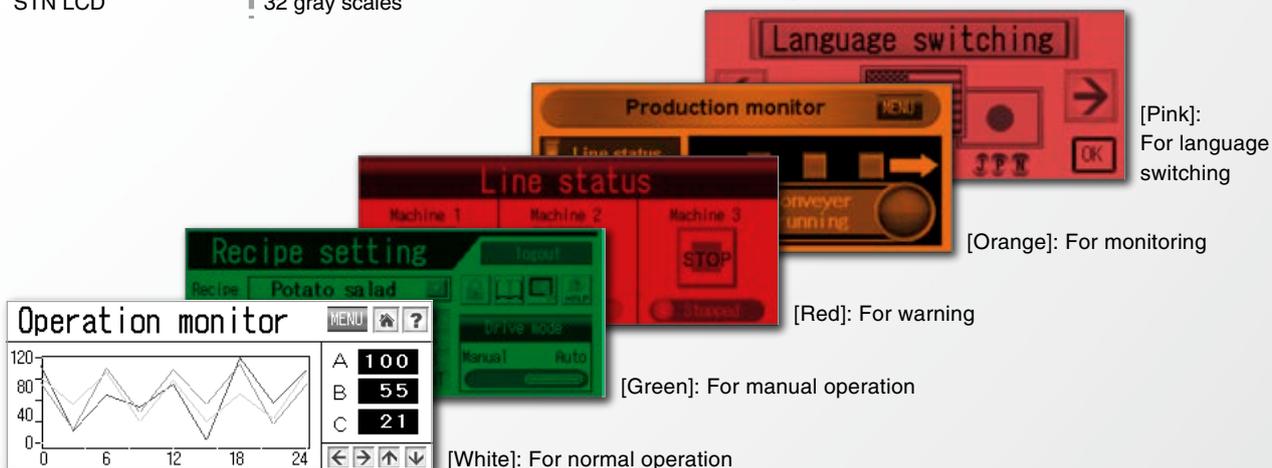
GT1020

Monochrome (black/white) STN LCD

GT2103

Monochrome TFT LCD with 32 gray scales

[Backlight color and screen example]



Ethernet type

GT2103-PMBD

SD card unit interface

Connect an optional SD card unit and save data including alarms and logging data.

USB device

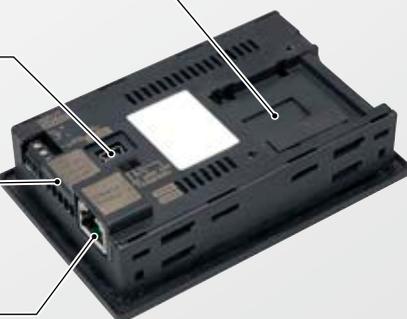
Connect a personal computer and transfer data.

RS-422/485

Easily connect to various industrial devices.

Ethernet

Use Ethernet to simultaneously connect to up to two types of PLCs from different manufacturers.



Serial type

GT2103-PMBDS

SD card unit interface

Connect an optional SD card unit and save data including alarms and logging data.

USB device

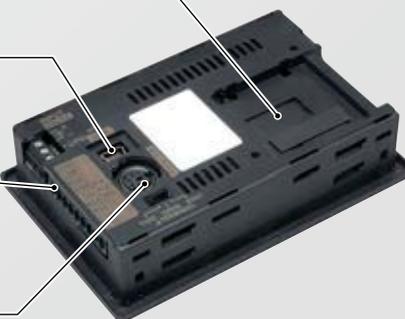
Connect a personal computer and transfer data.

RS-422/485

Easily connect to various industrial devices.

RS-232

Connect to various industrial devices, barcode readers and serial printers.



GOT2000 - Designed to meet your industrial automation needs.

High-speed processing

Easily operate the screens even during high-load processing, such as logging, script, alarm or device data transfer.

(GT16 → GT27: monitor performance is 2-fold or more higher)

Comparison of GT27/GT16 monitor performance



Increased memory capacity

Design screens without worrying about the data capacity. The product data compression technology allows up to 128MB of actual space to be used without an SD card. (GT27)

* An SD card may be required depending on the project.

Comparison of GT27/GT16 ROM capacity

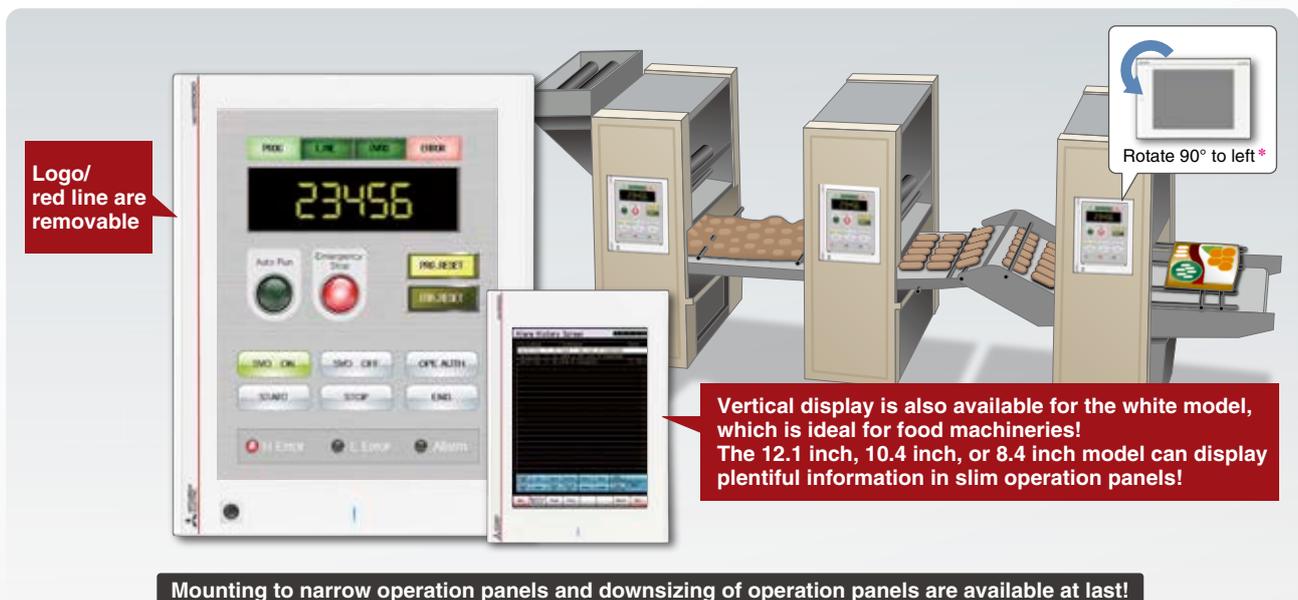


Enhanced lineup

The new GOT2000 is suitable for applications in any industry.

The GT27, GT25 white model provides an additional color option, and the flush frame without the USB port can be cleaned very easily.

The GOT can be installed vertically for extra flexibility when installed in confined spaces. **NEW**



Mounting to narrow operation panels and downsizing of operation panels are available at last!

* GT21 models should be rotated by 90 degrees to the right.

Use multi-touch gestures to operate your GOT in a more natural way!

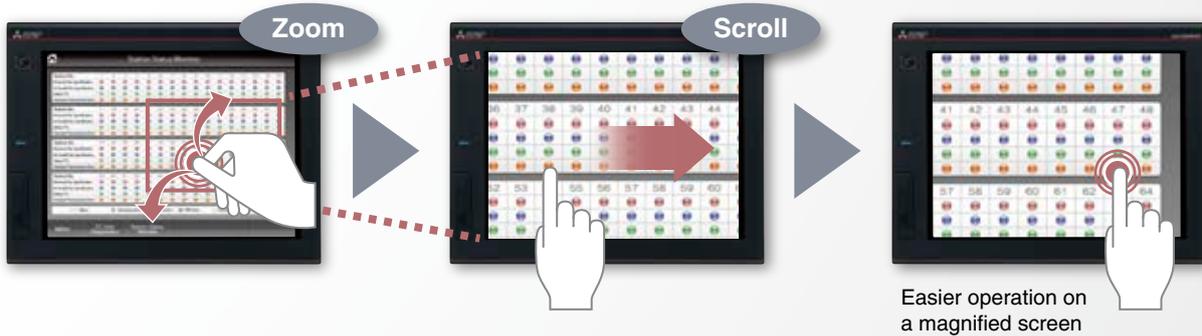


Screen Gestures

GOT2000 only

* GOT27 only

Zoom in to easily operate small and hard to reach switches.
After zooming in, scroll the display to show the area you want to operate.



Object Gestures

GOT2000 only

* GOT27 only

Specify an object to be enlarged, scrolled or flicked.

<Target objects>

- Historical data list display
- Alarm display (user)
- Alarm display (system)
- Simple alarm display
- Historical trend graph
- Document display



2-point press operation prevents incorrect operations

GOT2000 only

* GOT27 only

Prevent accidental operations by designating two pressing points for critical operations.

<Before>

2-point pressing switch was prepared separately



<GOT2000>

You only need the GOT!



* Cautions apply to the arrangement of the 2-point pressing switch.

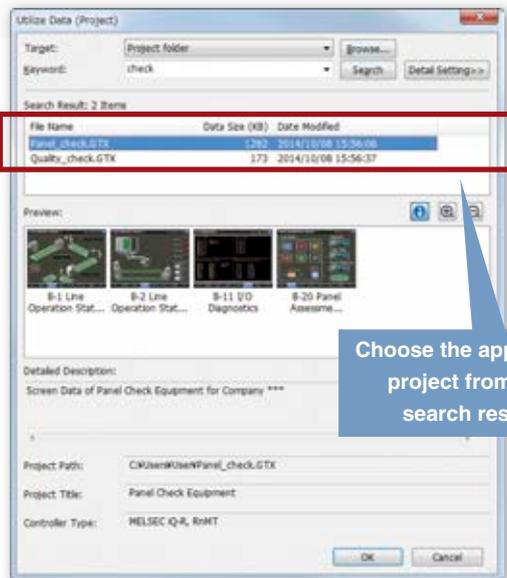
Professional Designs in Just a Few Clicks

The GOT2000 introduces an efficient approach to reuse previously created screen designs.

GOT2000 only

Reuse previous projects

Use keyword search to find and reuse existing projects or sample projects, minimizing engineering time spent on screen design.



GOT2000 only

Variety of reusable sample projects [Upgrade](#)

GOT2000 has many sample projects that can be used when designing screens. (English, Japanese, Chinese [Simplified]) Just select a sample and apply it to your screen.

Alarm



Recipe



Device monitor

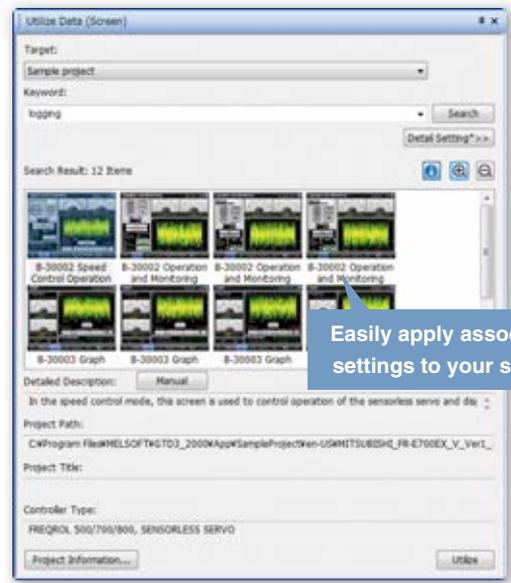
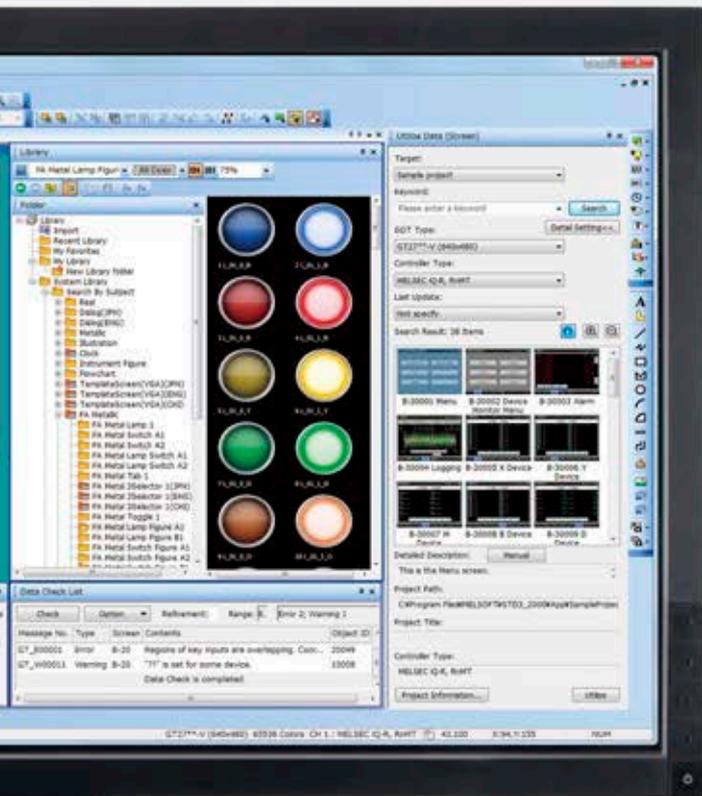


GOT Screen Design Software
MELSOFT GT Works3+plus

GOT2000 only

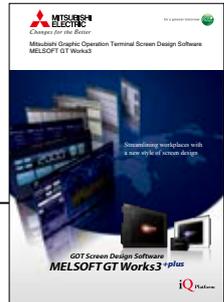
Reuse previous screens

Settings associated with a previous project, such as comment data, logging settings, etc., can be easily applied to a new project.



Easily apply associated settings to your screen.

For details, please refer to the GT Works3 Catalog (L (NA) 08170ENG).



Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

Programmable controller



Simple motion **NEW**



Q Motion **NEW**



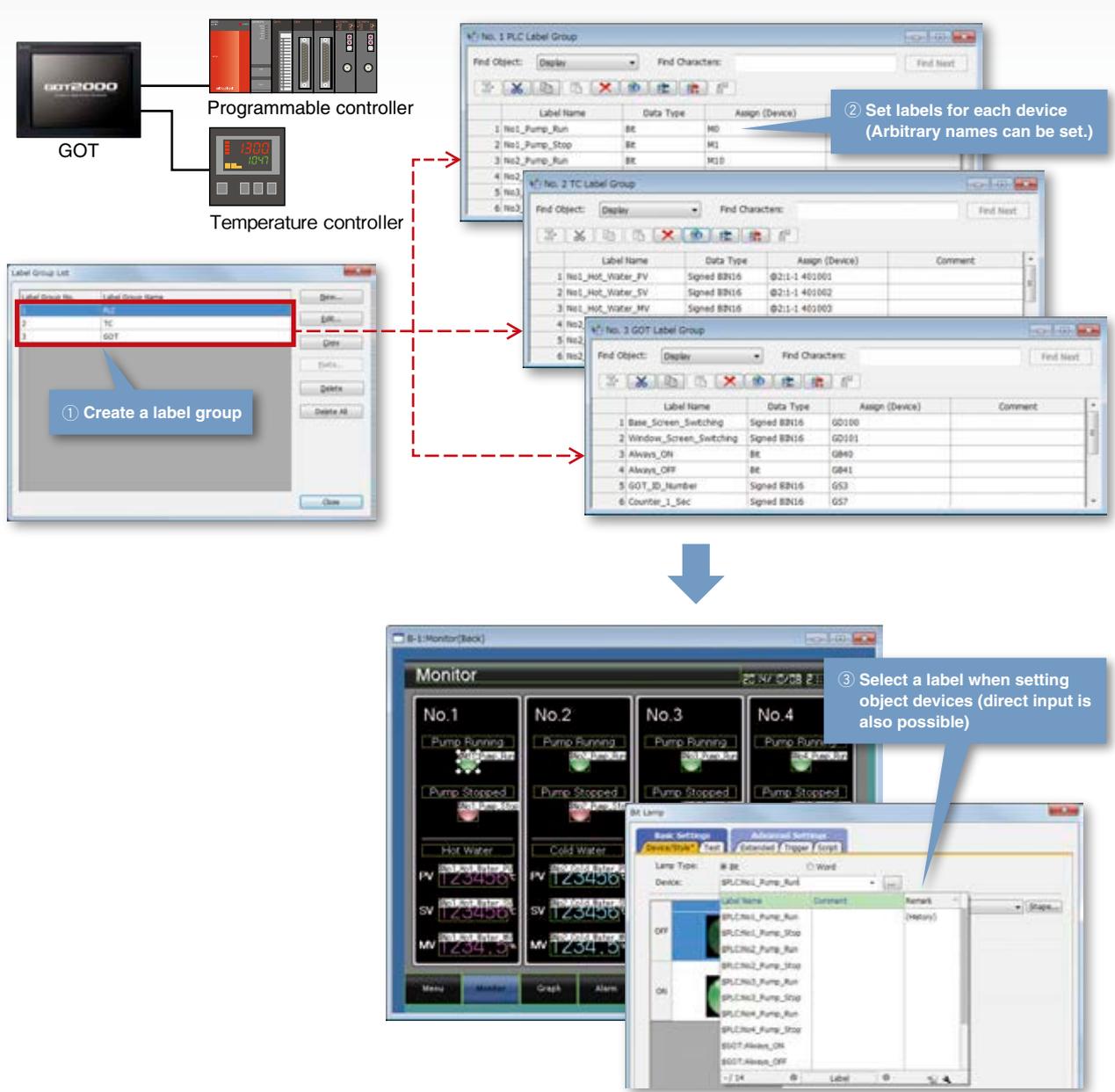
Labels for easy to understand screen design

A new screen design style without worrying about actual devices

Use the Label function to design screens without worrying about actual devices NEW

GOT2000
only

Instead of using devices, use easy-to-understand names (label names) to create screens. Not only Mitsubishi programmable controller devices, but also third party controller devices and GOT internal devices can be assigned to labels. The labels can easily be managed by defining label groups for each controller and screen.



GOT Screen Design Software
MELSOFT GT Works3+plus

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

Quickly set labels/devices with "Input Assist"! Upgrade



When setting your labels **NEW** /devices, "Input Assist" provides a list of applicable labels **NEW** /devices, complete with label comments **NEW**, device comments, and device definitions.

<Example of devices>

① Enter a device name

② Applicable devices found in the project and recently used devices are displayed in a list.

③ Select and set a device from the list.

GT Works3 device setting area

<Example of device comments>

① Import comment file

② Enter a keyword

③ Applicable devices and device comments imported from GX Works3/GX Works2 are displayed in a list.

④ Select and set a device from the list.

Device Name	Device Comment
M10	Equipment A Normal
M11	Equipment B Normal
M12	Equipment A Buzzer Stop
M13	Equipment B Buzzer Stop Ca...
M14	Equipment A Module 1 Interlock
M15	Equipment B Module 2 Interlock
M16	Equipment A Buzzer Stop
M17	Equipment A Buzzer Stop Cancel
M18	Equipment A Module 1 Interlock
M19	Equipment A Module 2 Interlock
M20	Equipment A Module 3 Interlock

Use templates to greatly reduce your screen creation time!

Customize each template to the desired look-and-feel, ranging from color options to device selection. Attributes such as devices and colors can be set for each template. You can easily change devices and colors by associating each object with the template's attribute.

Make batch changes with simple settings

Change green to red

Colors and devices are changed in a batch

Template attributes (color)

- Historical trend graph line color
- Character string character color
- Numerical display value color
- ...

● **Items that can be registered in templates**

Figures, objects

● **Attributes that can be registered and changed in templates**

Devices (bits, words), numerical values, text, colors, figures, fonts, font size

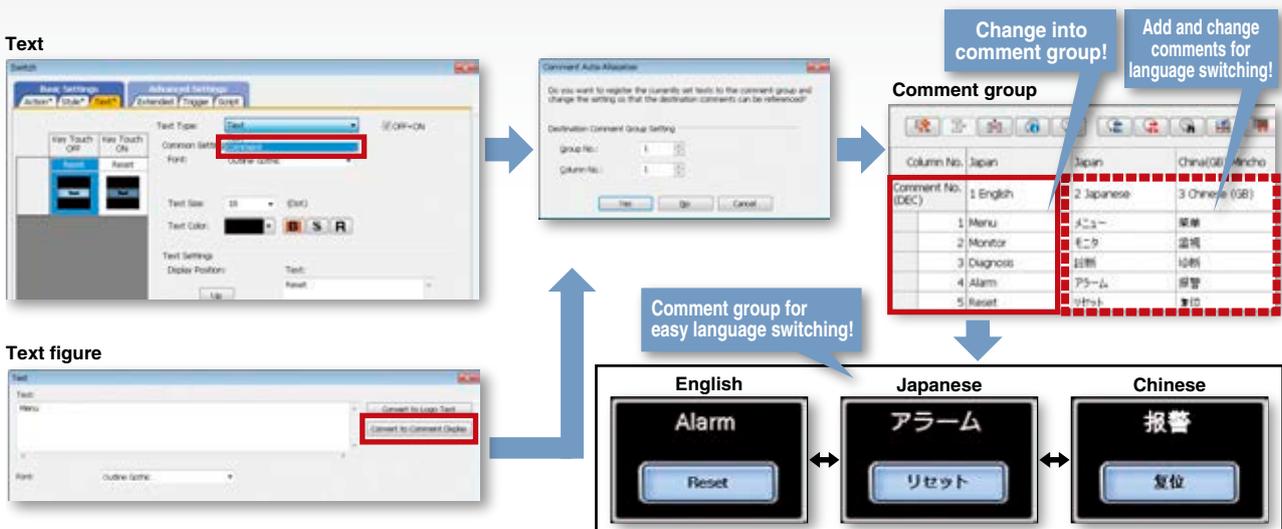
Maintain screens more efficiently

Quickly and simply correct existing screens using various functions

Easily create multi-language screens! **NEW**

GOT2000 only

The character strings of switches and lamps can easily be converted from the Text or Text Figures into Comments. This makes it easy to upgrade screens to display multiple languages.



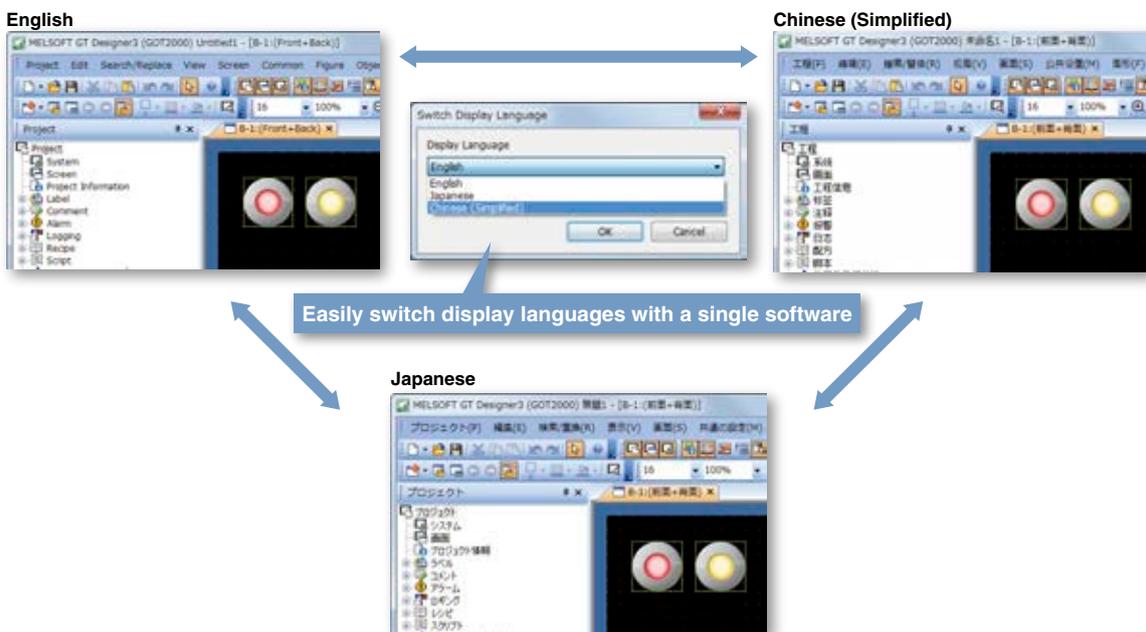
Useful for maintenance abroad! **NEW**

GOT2000 only

The display language of the GT Works3 menu bar, dialog, and others can be switched.

When maintaining the data abroad, away from where you created the data, the data editing work can be done smoothly by selecting a preferred language by the user.

* The GOT1000 series does not support multiple languages. It is recommended to purchase GT Works3 of the language to be used.



GOT Screen Design Software
MELSOFT GT Works3+plus

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

View data difference at a glance with “Data Verification”! Upgrade

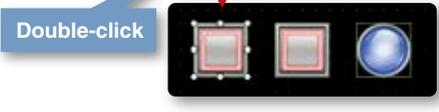
GOT2000 only

Verify the project data and check the results for each screen/object **NEW**. From the Verify Result window, you can jump to the target object or can narrow down results by items such as the screen type. This function enables you to check differences and modify the data quickly even if the project data includes many screens. **NEW**

Verify Project (verifying the project being edited against one in a personal computer) and GOT Verification (verifying the project being edited against one in the GOT) are available

Export of Verify results and refinement by items such as screen type are possible

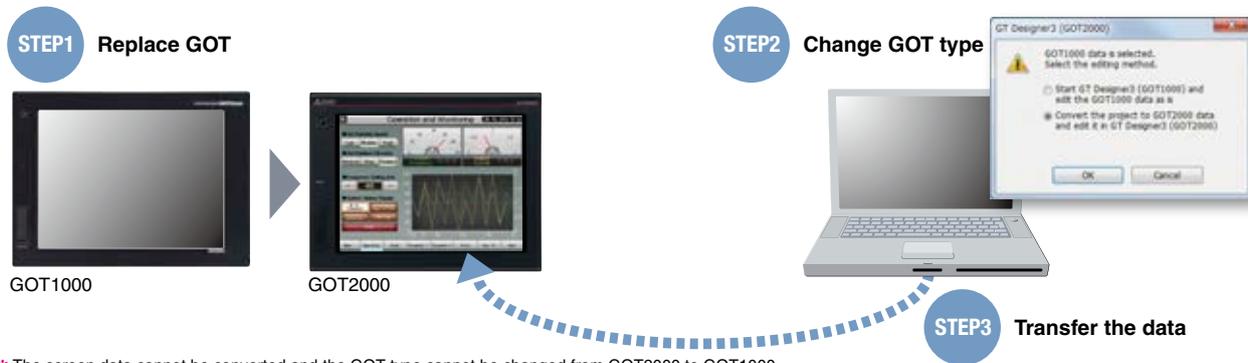
Source Project: Line_A_control_panel.GTX Version1.122C	Date of Update	Destination Project: Line_B_control_panel.GTX Version1.122C	Date of Update	Compare Result
Base Screen		Base Screen		
Screen Property	10/10/2014 13:39	Screen Property	10/10/2014 13:40	Mismatch
Switch(Object ID: 10000)		Switch(Object ID: 10000)		Match
Switch(Object ID: 10001)		Switch(Object ID: 10001)		Mismatch
Switch(Object ID: 10002)				Source Only
Bit Lamp(Object ID: 10003)		Bit Lamp(Object ID: 10003)		Mismatch
		Switch(Object ID: 10005)		Dest. Only
(Unmatched figure/object stacking order)		(Unmatched figure/object stacking order)		Mismatch
Common		Common		
GOT Type Setting	10/10/2014 13:40	GOT Type Setting	10/10/2014 13:40	Match
GOT Environmental Setting		GOT Environmental Setting		



The background color of a row varies according to the type of difference.
Pink: The item exists in both projects and the data are not matched.
Blue: The item exists only in the source project.
Green: The item exists only in the destination project.

Easily upgrade from GOT1000!

Simply change the GOT Type using the screen design software to upgrade your GOT1000 projects to GOT2000. It will be a drop in replacement because the panel size is exactly the same.



* The screen data cannot be converted and the GOT type cannot be changed from GOT2000 to GOT1000.

An Easy and Flexible HMI Solution

Simplifying startup and debugging

FA Transparent Function & Wireless LAN Connection

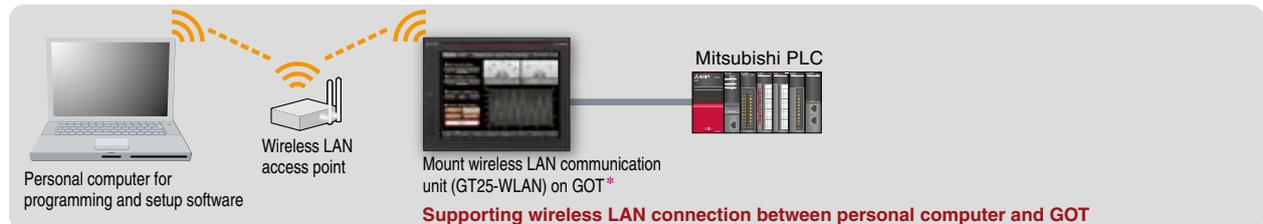
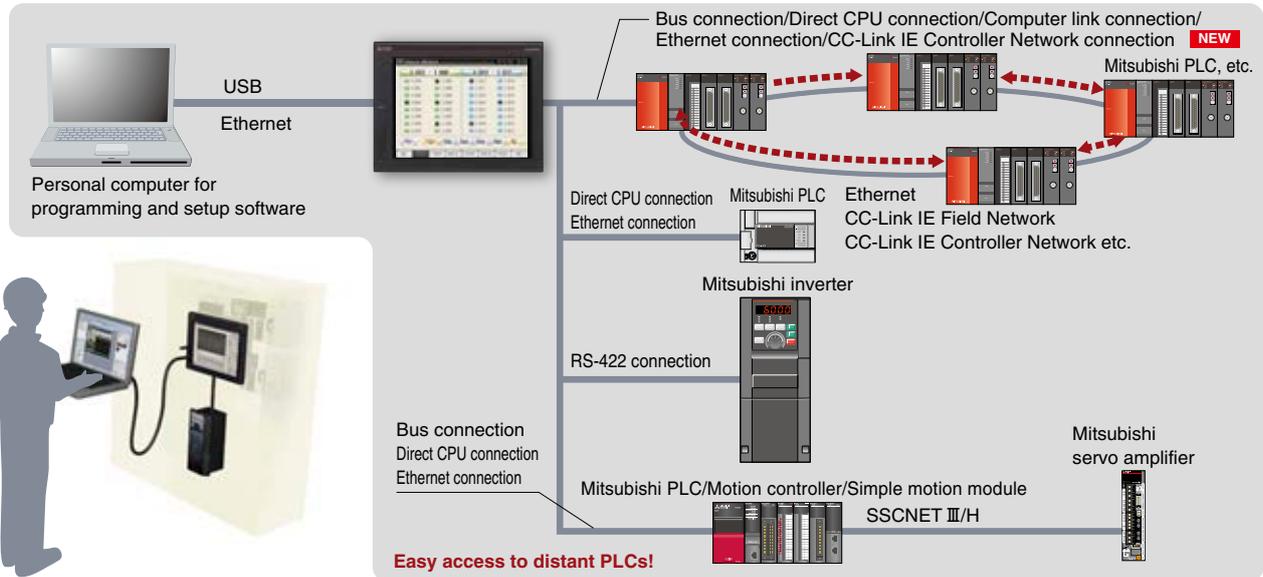
GT27 GT25 GT23 GT21

Simplifying the startup process of industrial automation systems

Connected with a personal computer, the GOT acts as a transparent gateway to enable programming, start up, and adjustment of industrial automation systems. Users do not have to bother with opening the cabinet or changing cable connections.

A wireless LAN connection between the personal computer and the GOT is supported. Startup and perform adjustments even without a cable connection. **NEW**

GT27 GT25 GT23 GT21



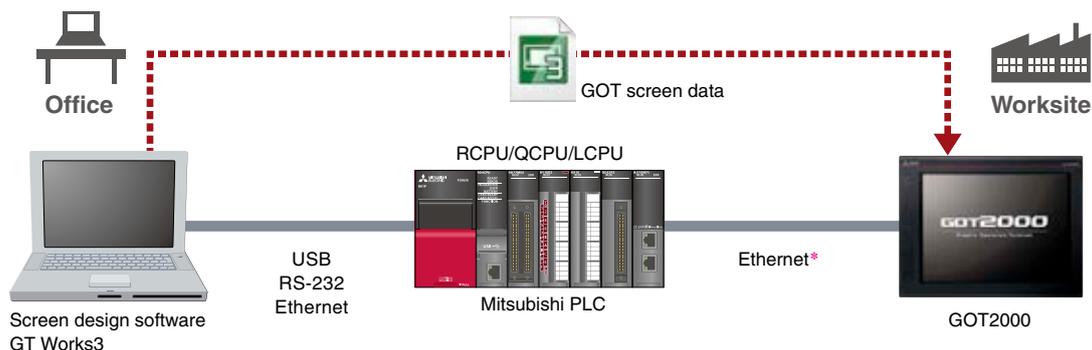
* Data transfer in wireless LAN communication may not be as stable as that in cable communication. A packet loss may occur depending on the surrounding environment and the installation location. Be sure to perform a confirmation of operation before using this product.
The product with hardware version A can be used only in Japan.
The product with hardware version B or later can be used in Japan (Japan Radio Law), the United States (FCC), the EU member states, Switzerland, Norway, Iceland, and Liechtenstein (R&TTE).

Transferring GOT screen data

GOT screen data can be transferred from a personal computer to the GOT2000 with a programmable controller acting as a gateway.

GT27 GT25 GT23 GT21

There is no need to connect cables directly from personal computers to the GOT.
Editing GOT screen data during startup and maintenance is now easier than ever.



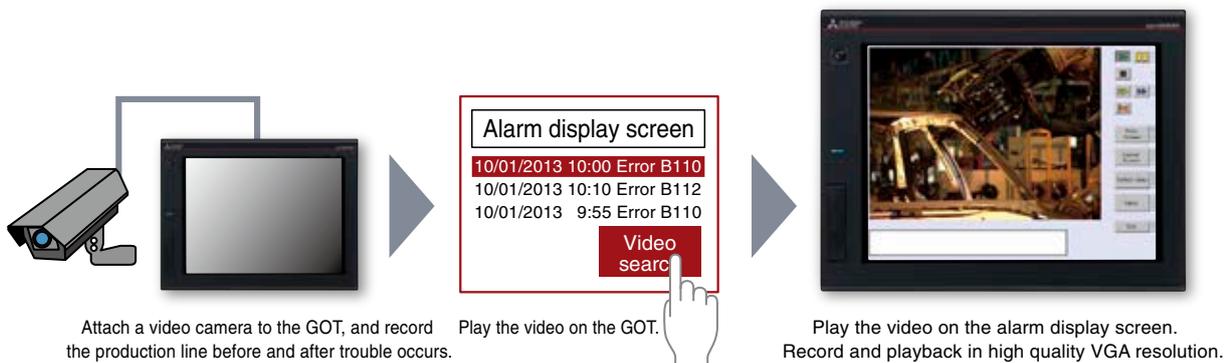
* This feature does not apply to a GOT connected to a CPU's built-in Ethernet port.

Record the worksite state

Multimedia Function

GT27 GT25 GT23 GT21

Quickly identify cause of errors by reviewing recordings of the production line.



[Recording specifications]

<Before-after event recording> ...A total of 240 seconds of images can be recorded, including 120 seconds before and after a system error occurs. (When event trigger device turns on.)

<Standard mode> ...Two types of recording modes are available. Recording size VGA (640×480), frame rate max. 15fps, or recording size QVGA (320×240), frame rate max. 30fps.

<Longtime mode> ...Approximately two days worth of video image can be recorded. The recording size is QVGA (320×240), frame rate is 15fps.

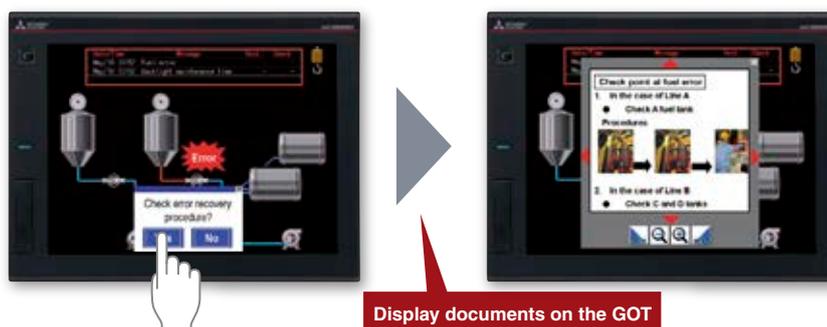
Review documents at the production site

Document Display

GT27 GT25 GT23 GT21

When errors occur on-site, a check sheet or manual can be displayed on the GOT with instructions on how to restore the system. This can reduce the downtime.

<Supported file format>
doc, xls, ppt, pdf, jpg, bmp



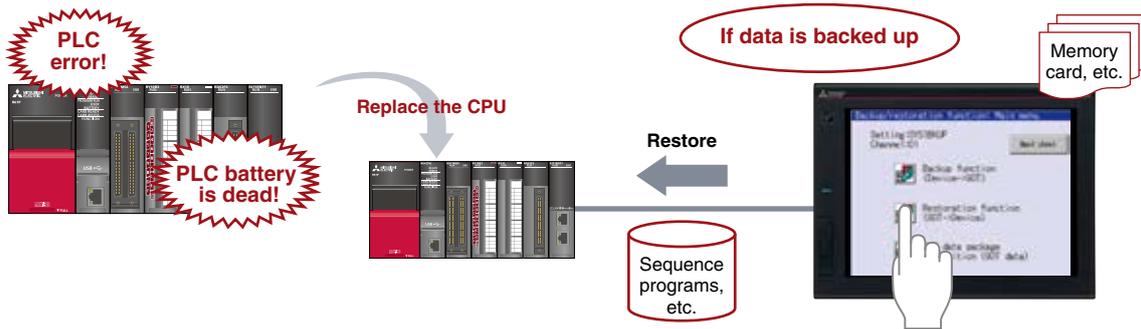
An Easy and Flexible HMI Solution

Easily backup and restore programs

Backup/Restore

GT27 GT25 GT23 GT21

Data such as the programs and parameters of the programmable controller CPU, motion controller, robot controller and CNC can be backed up onto the GOT's SD card or USB memory. With a backup of data in the GOT, there's no need to use a personal computer when replacing the industrial devices such as the programmable controller CPU. All replacement and restoration can be completed with just the GOT.



<Objective data> Programs, parameters, device comments, device default value data, file registers, etc.

<Objective models> MELSEC iQ-R Series* **NEW**
 MELSEC-Q Series (excluding Q12PRH/Q25PRHCPU), MELSEC-L Series, MELSEC-F Series
 Motion controller MELSEC iQ-R Series* **NEW**
 Motion controller MELSEC-Q Series (SV13/SV22 only)*, CNC C70* **NEW**
 Robot controller (CR750/751-Q, CR750/751-D, CRnQ-700, CRnD-700)*

* Not supported by GT21.

<Supported connection types> Bus connection, direct CPU connection, computer link connection, Ethernet connection

Back up multiple controllers at the same time

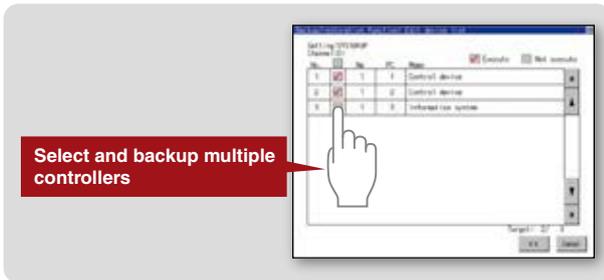
Multiple controllers connected on Ethernet can be backed up at the same time, reducing the time needed to back up each controller separately.

* Not supported by GT21.

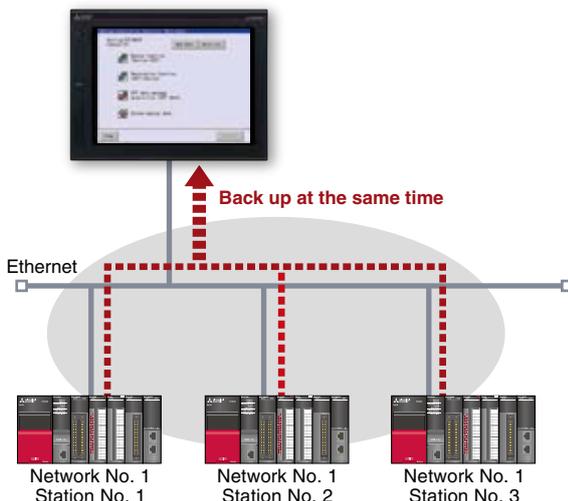
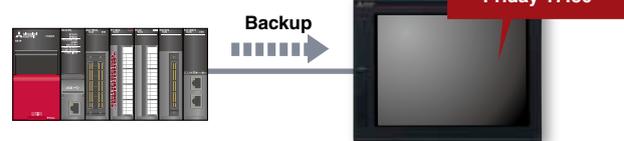
Automatic backup

Besides manual backup from touch switches, you can specify a trigger device, a day of the week, and time for automatic backup.

* Not supported by GT21.



Backup every Friday at 17:30

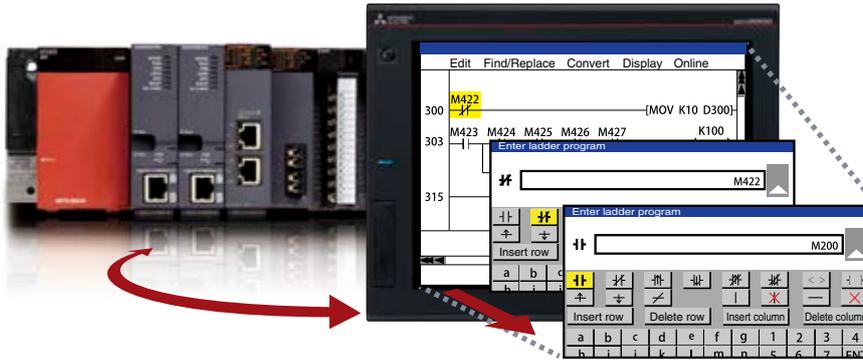


Monitor and edit ladder programs without a personal computer

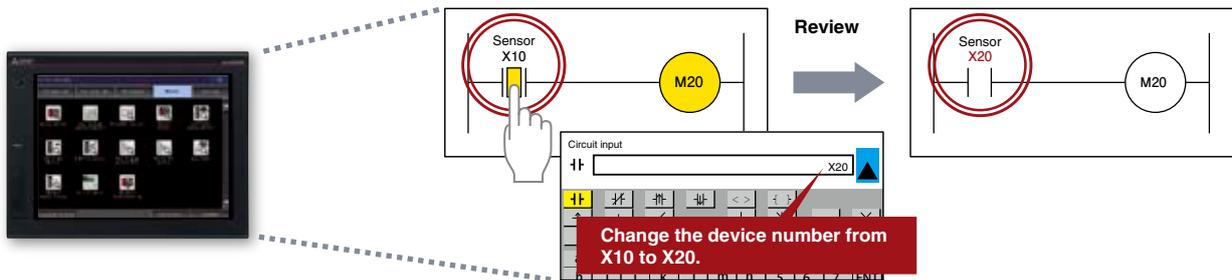
Sequence Program Monitor

GT27 GT25 GT23 GT21

When an error occurs, monitor the ladder program and identify the cause of error. There is no need for a personal computer on the production floor.



Just touch the GOT screen and easily edit the ladder program to make simple changes.



<Target models> MELSEC-Q Series (excluding QnPHCPU/QnPRHCPU), MELSEC-L Series, Motion controller MELSEC-Q Series (programmable controller CPU section)

* To be supported by MELSEC iQ-R Series soon.



An Easy and Flexible HMI Solution

Check logging data of a CPU and high speed data logger module without a personal computer

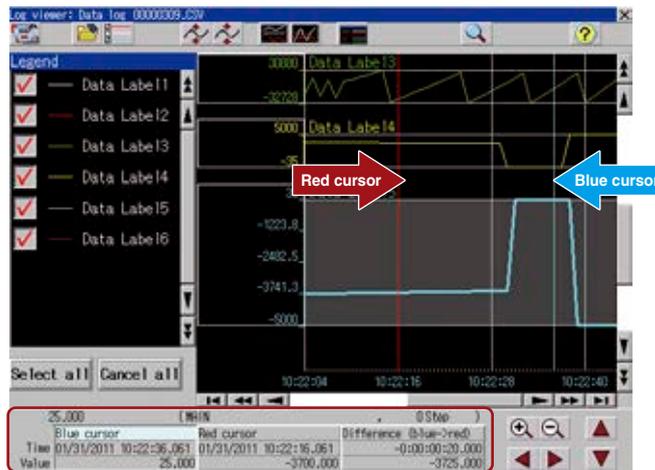
Log Viewer

GT27 GT25 GT23 GT21

Logging data collected by the data logging function of an RCPU **NEW**, QnUDVCPU, LCPU or high speed data logger module can be displayed on the GOT.

By displaying multiple cursors, changes in data can easily be checked. The collected logging data can be searched for by index No.

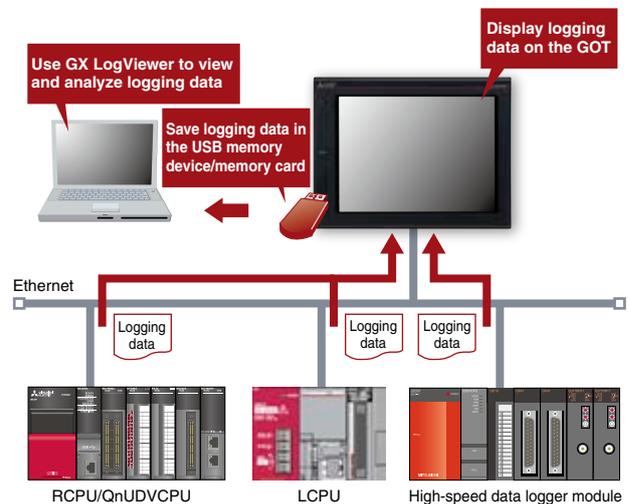
<Data to be displayed> ... Data logging (historical trend display)



You do not need to have a PC onsite. Check logging data from the GOT, and you can take corrective actions quickly.

The logging data can be copied to a USB memory device attached to the USB interface on the front of the GOT. You can retrieve the logging data easily with the GOT without removing the memory card from the CPU or the high speed data logger module.

Connect a personal computer to the front USB interface of the GOT to view the logging data with the GX LogViewer, or to change the logging settings with the CPU Module Logging Configuration Tool or the High Speed Data Logger Module Configuration Tool. (FA transparent function)



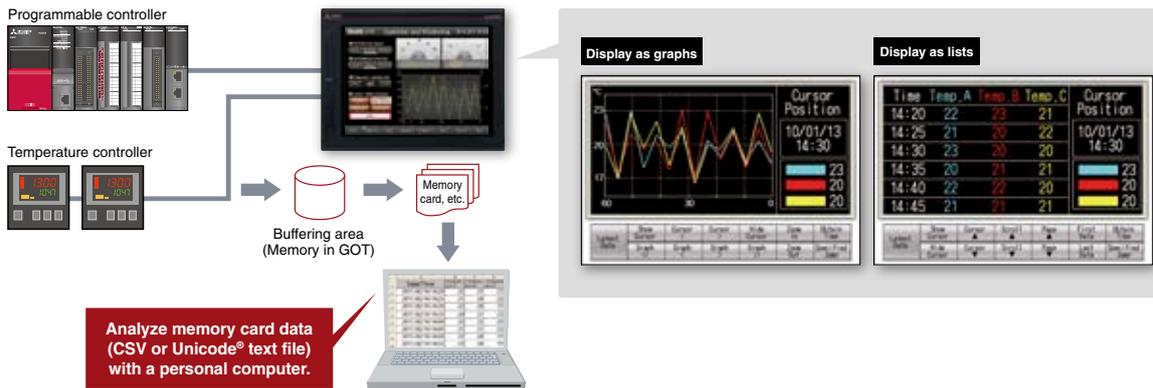
Easily collect data

Logging & Graphs and Lists

GT27 GT25 GT23 GT21

Use the GOT to collect data from the programmable controller and temperature controllers. The data can be displayed in graphs and lists. It can also be exported to a personal computer for further analysis. The logging data can be saved in the built-in SRAM even if the power fails.

<Supported device formats> ... Bit, BIN, BCD, real numbers, character strings **NEW**



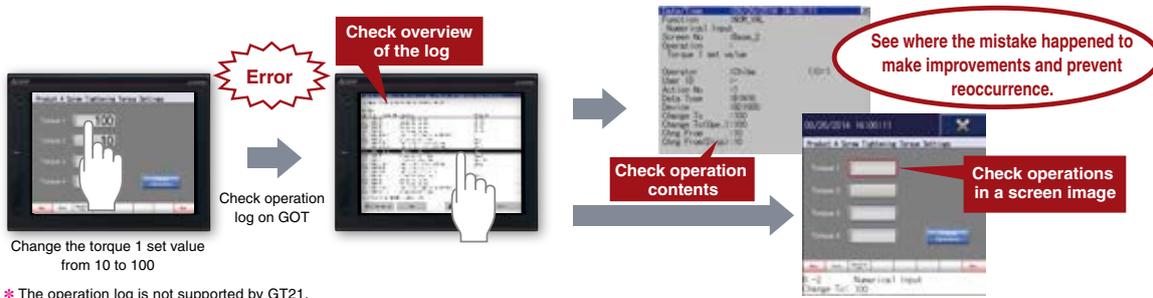
Easily identify the cause from operation history

Operator Authentication & Operation Log

GT27 GT25 GT23 GT21

The operation and display level (authority) can be set for each operator to strengthen security and prevent operation errors from reoccurring.

The operation log file saved with the operator information can be viewed to identify causes, and help make improvements and prevent recurrence.



* The operation log is not supported by GT21.

Perform changeover even without changing the ladder program

Recipe Function

GT27 GT25 GT23 GT21

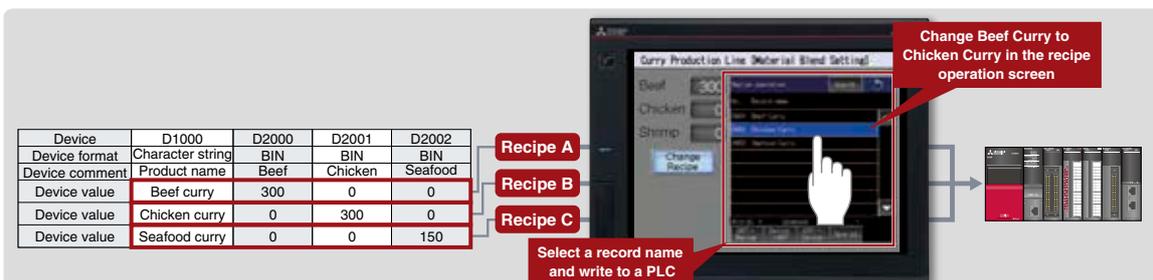
Recipe information (device values) such as material blend and machine conditions are saved in the GOT. This information can be written from the GOT to quickly perform changeover.

Recipes can be changed (changeover) easily by selecting recipe file name and record name on the user-created screen.* **NEW**

Recipe files can be converted into CSV files or Unicode® text files and easily edited on a personal computer.

<Supported device formats> ... Bit, BIN, BCD, real numbers, character strings

* Not supported by GT21.



An Easy and Flexible HMI Solution

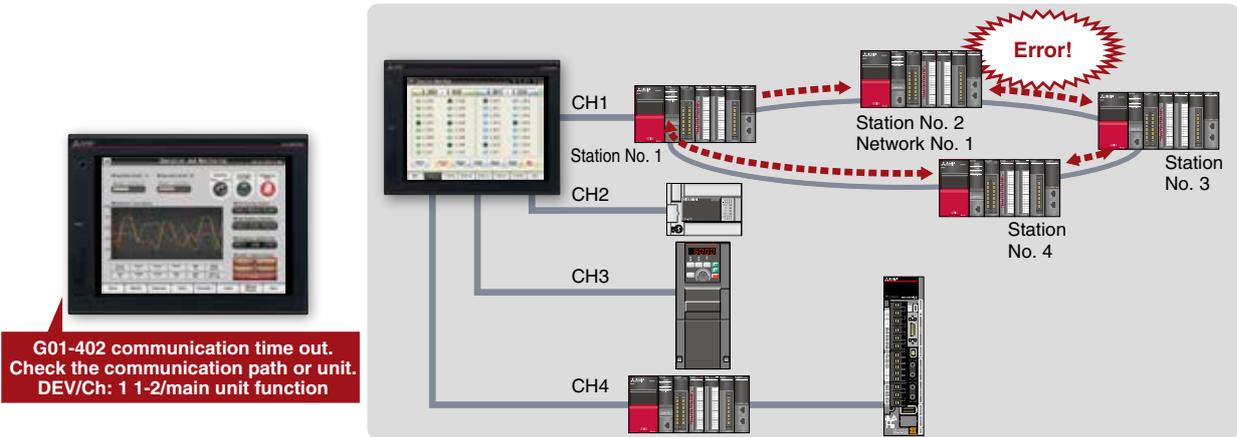
Identify the cause of alarms

System Alarms

GT27 GT25 GT23 GT21

Information such as the channel No., network No., station No., and CPU No., has been added to the system alarm making it possible to identify the abnormal device just by looking at the current alarm.

The number of the screen and the ID of the object that caused the alarm are also recorded and displayed, so that operators can easily identify what operations caused an alarm.



Easily search for causes when alarm occurs

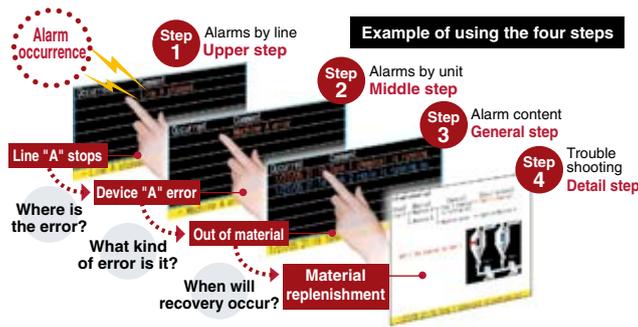
Alarm Function

GT27 GT25 GT23 GT21

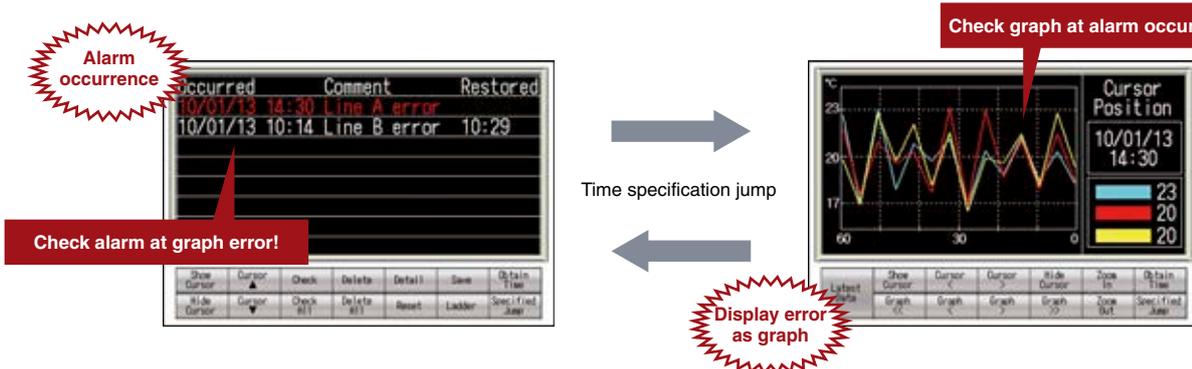
Alarms can be divided into groups and displayed by system or levels, or can be displayed all at the same time.

Troubleshooting multiple alarm occurrences may be complicated in a large system, however, breaking down the alarms leads to effective and fast resolution. The alarm log data can be saved in the built-in SRAM even if the power fails.*

* Not supported by GT21.

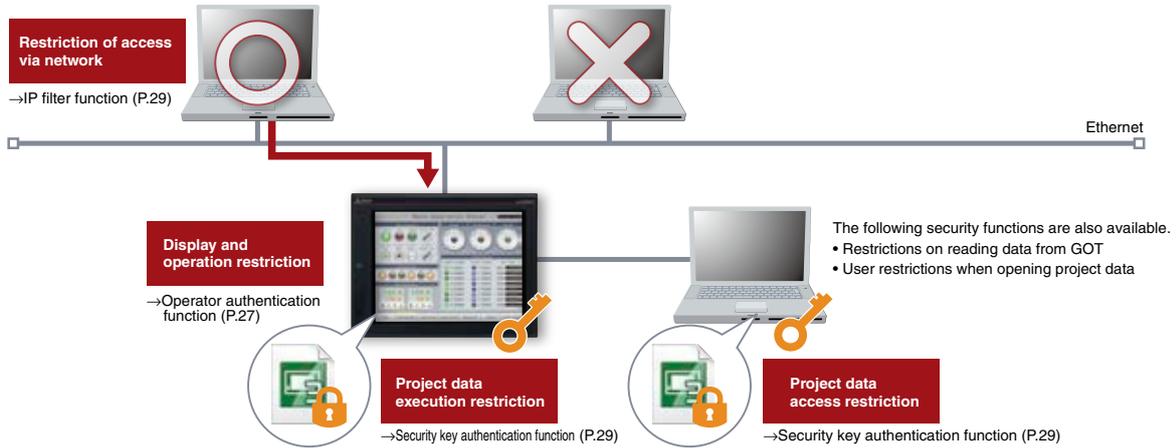


The alarm function works with the logging graph, so that the situation at alarm occurrence or graph error can be seen easily.



Protect valuable assets Various security functions

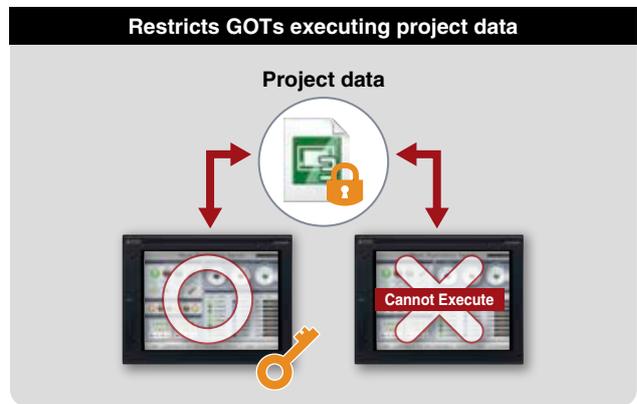
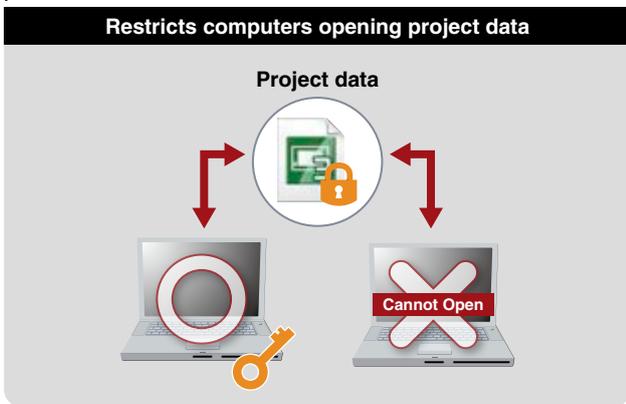
Various security functions protect customers' assets.



Protect your project data from alteration and duplication! Security Key Authentication Function

GT27 GT25 GT23 GT21

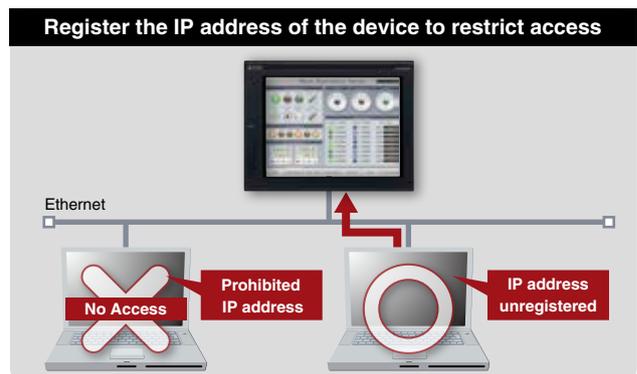
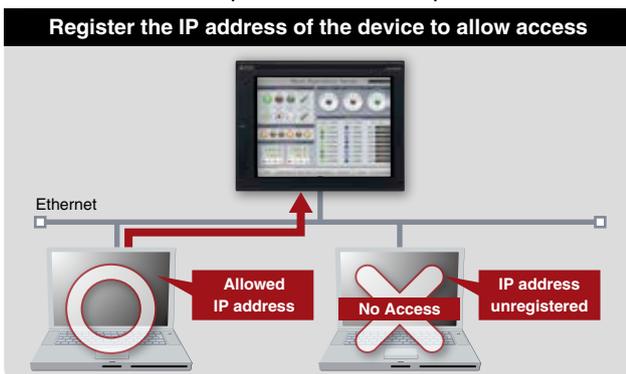
With the security key authentication function, computers without registered security keys can't open project data. As well, because GOTs without registered security keys can't execute project data, your techniques (know-how) are protected from information leaks.



Reduce risk of unauthorized access through networks! IP Filter Function

GT27 GT25 GT23 GT21

By registering the IP addresses of devices which can access the GOT or which are prohibited to access the GOT, access from devices without permission can be prevented.



Powerful Remote Access Options

Operate GOT remotely

GOT Remote Access (VNC Server)

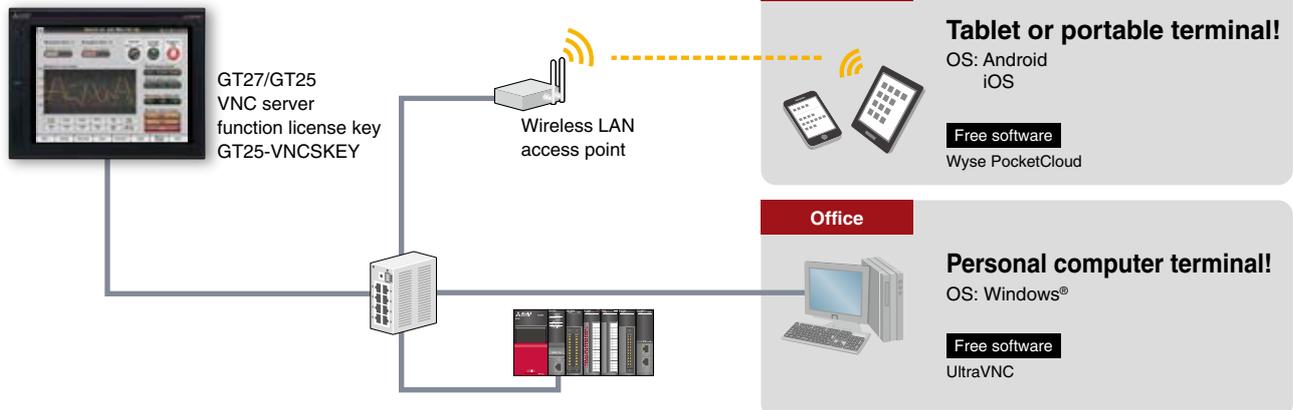
GT27 GT25 GT23 GT21

Remotely view and operate the GOT screen from a personal computer, tablet, or portable terminal that is connected via Ethernet.

Utility functions including the sequence program monitor and the network monitor are also supported.



<System configuration>



* For the list of applicable VNC client software, please refer to the Technical Bulletin No. GOT-A-0069.

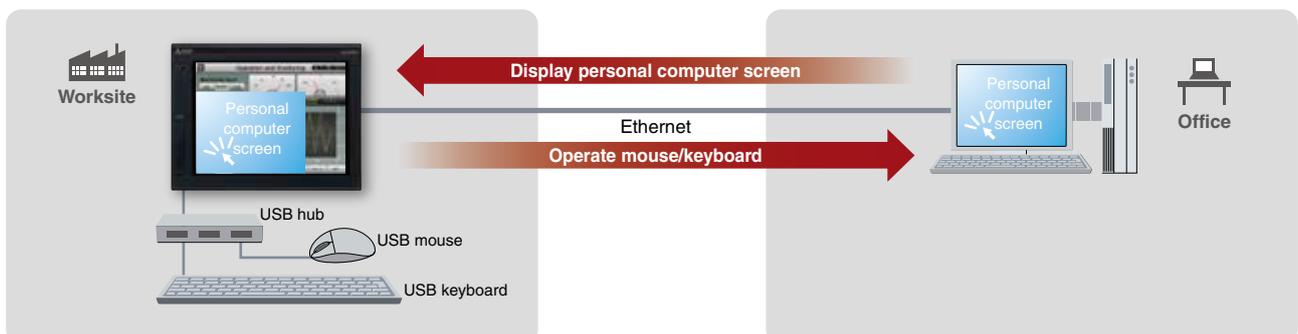
Use GOT to remotely operate a personal computer

Remote Personal Computer Operation (Ethernet)

GT27 GT25 GT23 GT21

A GOT can remotely operate a personal computer that is connected via Ethernet. Connect a USB mouse and keyboard to the USB interface found in the front or at the back of the GOT. This allows you to open files such as manuals that are stored in the personal computer, view the computer's browser, and use engineering tools.

* A separate license (GT25-PCRAKEY) is required.

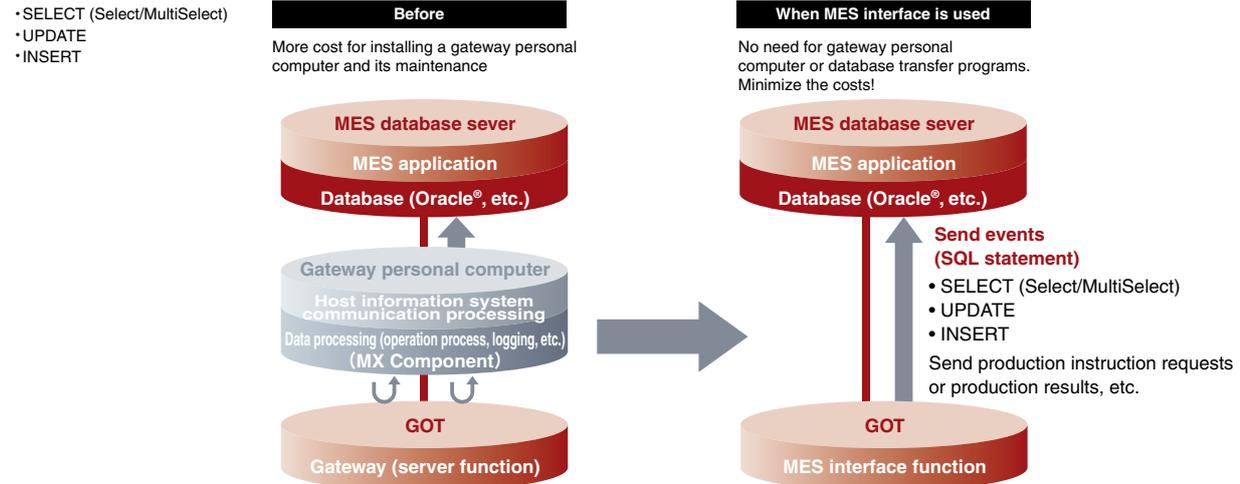


Communicate with databases MES Interface Function

GT27 **GT25** **GT23** **GT21**

The GOT uses SQL statements to directly transmit data from the connected industrial devices to a database server. The communication with the database is configured in GT Works3 without any programming. There is no need for a gateway computer or complex programming to communicate with the MES database server.

* A separate license (GT25-MESIFKEY) is required.



MES Interface Functions

- DB interface function (tag function / trigger buffering function / trigger monitoring function / SQL text transmission function < SELECT (Select/MultiSelect) / UPDATE / INSERT > / arithmetic processing function / program execution function / DB buffering function)
- SNTP time synchronization function • Resource data send function • Diagnostics function
- DB server function (ODBC connection function / connection setting function / log output function)

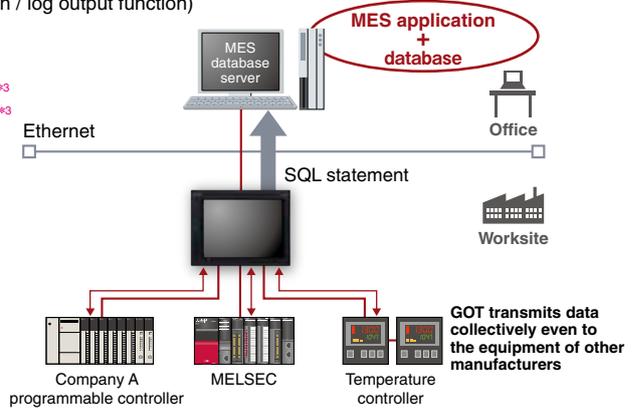
Usable databases

- Oracle® 12c^{*1} **NEW** •Oracle® 11g^{*2} •Oracle® 10g/9i/8i^{*3}
 - Microsoft® SQL Server® 2012/2008 R2/2008^{*2} •Microsoft® SQL Server® 2005/2000^{*3}
 - Microsoft® SQL Server® 2000 Desktop Engine (MSDE2000) •Microsoft® Access® 2013^{*3}
 - Microsoft® Access® 2010^{*2} •Microsoft® Access® 2007/2003/2000
- *1: Compatible only with 64-bit versions.
*2: Compatible with 32-bit and 64-bit versions.
*3: Compatible only with 32-bit versions.

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



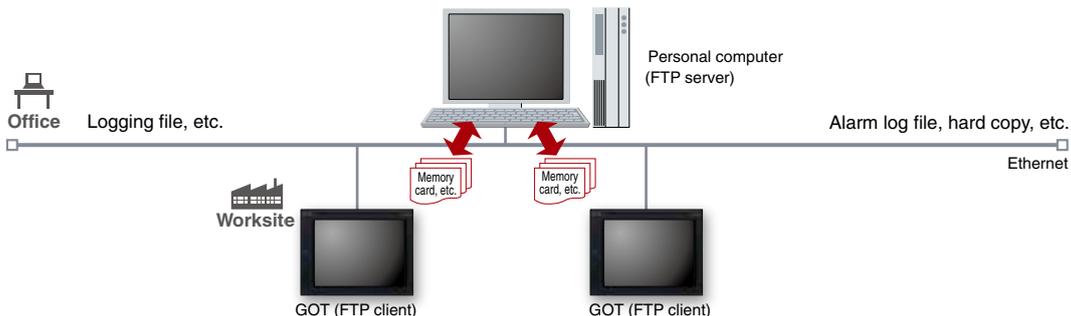
Mitsubishi Electric e-Factory presents the optimum products to connect production information and MES (Manufacturing Execution System) to improve productivity at clients' factories.



Send and retrieve files between a GOT and personal computer File Transfer (FTP Client) Function

GT27 **GT25** **GT23** **GT21**

By using a GOT, files (alarm logs, hard copies, etc.) stored on the GOT's memory card or USB memory can be sent to or received from a personal computer. File names and folder names can be specified indirectly.



Perfectly Complemented by SoftGOT

Execute GOT functions on your personal computer

SoftGOT

SoftGOT allows GOT functions to be executed on a personal computer. Similar to the GOT2000, a variety of industrial devices can be connected and monitored. The GT SoftGOT2000 Version 1 software is included in GT Works3, but requires a separate license key to operate.



USB port license key

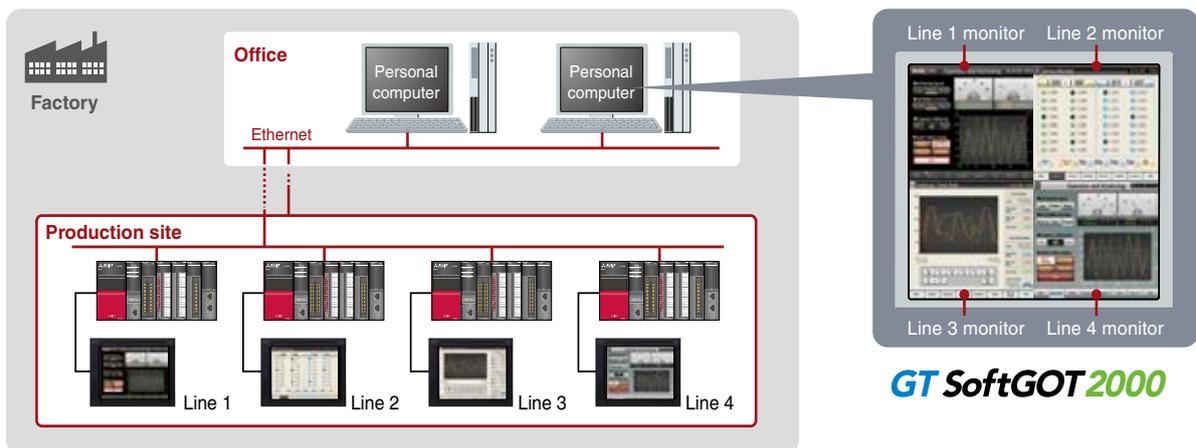
Monitor the production site from a remote location

Reduce downtime

Use GT SoftGOT2000 to monitor the production site from your office. You can collect information quickly when a problem occurs, taking necessary actions immediately.

Use GOT project data from the production site

The GOT project file running at your production site can be reused as the GT SoftGOT2000 project file, greatly reducing your design costs.



Engage with MELSEC process control

Simplify design and maintenance of a process control system by connecting PX Developer's monitor tools with GT SoftGOT2000. This process control monitoring system can be easily used in various process control applications.

PX Developer face plates, etc.

Monitor, operate or tune the loop control tags. (The display position can be specified.)

GT SoftGOT2000 touch switch / object

Click on touch switches and objects to open the various screens of the PX Developer monitor tool. (The display position can be specified.)

Security collaboration

The GT SoftGOT2000 security level is changed accordingly when the PX Developer monitor tool's mode is changed (engineer mode / operator mode / lock mode). Authority can be set for operations requiring security.



PX Developer monitor tool bar

Click on buttons to execute various operations such as starting GT SoftGOT2000 or switching base screens.

GT SoftGOT2000 base screen

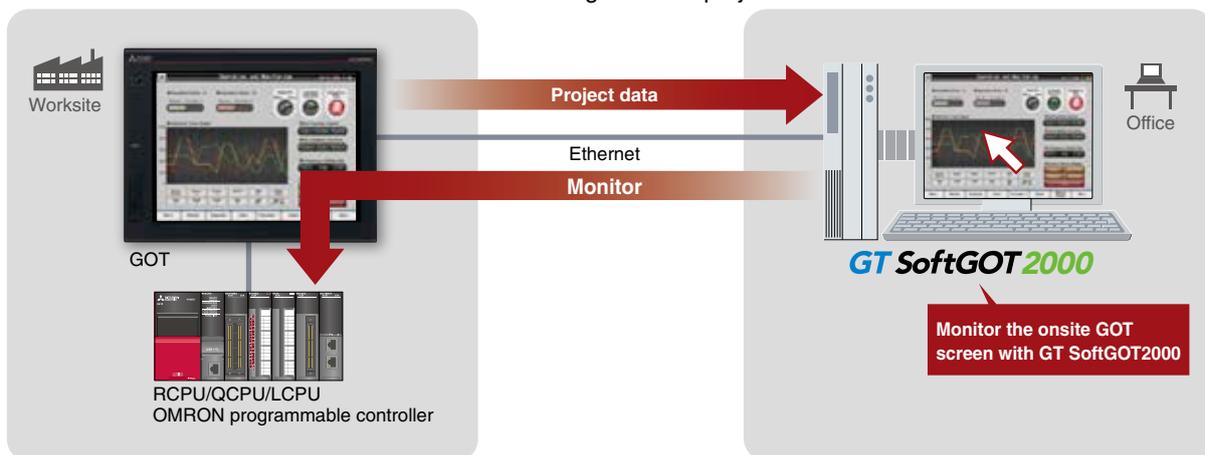
Turn your desktop into a graphic monitoring window with the full-screen and back-screen mode.

GOT2000 compatible HMI software
GT SoftGOT2000 Version 1

Remote monitoring with SoftGOT SoftGOT-GOT Link Function

GT27 GT25 GT23 GT21

GT SoftGOT2000 allows remote monitoring of devices connected on the worksite. This feature is available by connecting the GT SoftGOT2000 with the GOT via Ethernet and sharing the GOT project data.

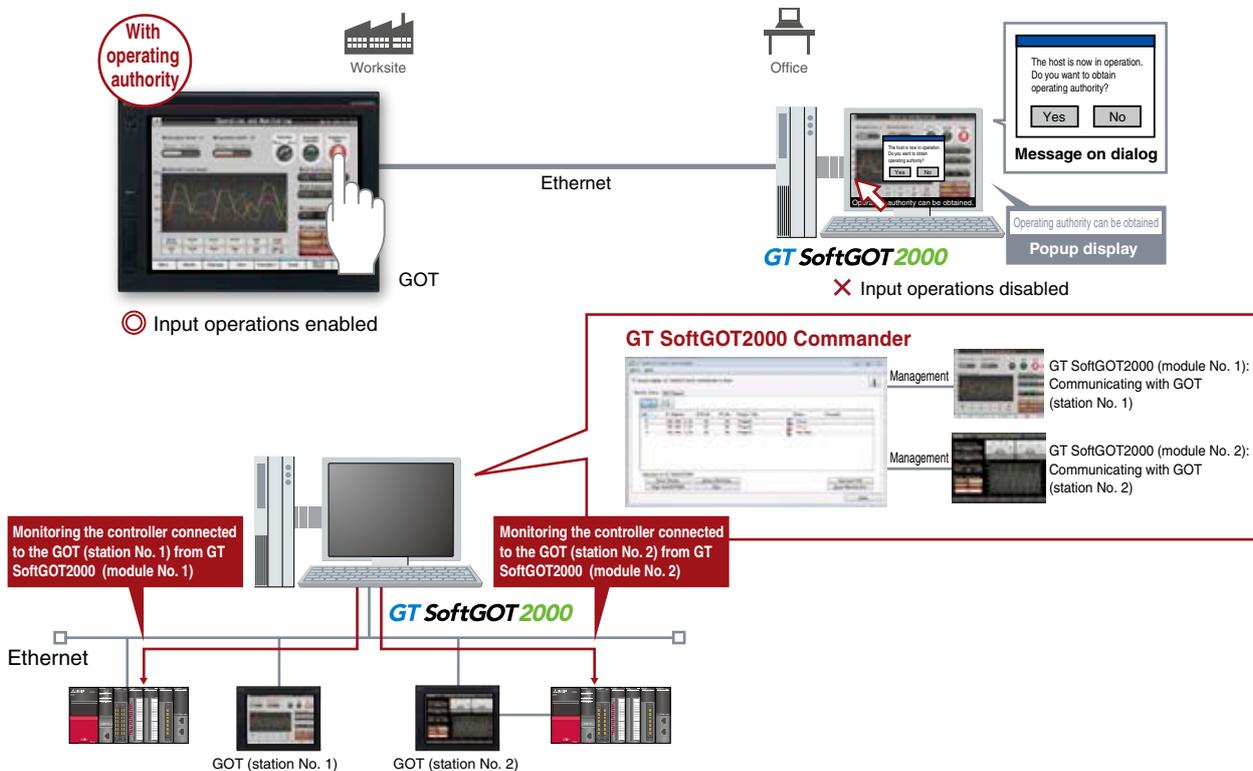


Control multiple SoftGOT modules GT SoftGOT2000 Commander

GT27 GT25 GT23 GT21

GT SoftGOT2000 Commander

By using GT SoftGOT2000 Commander, multiple GT SoftGOT2000 modules using the SoftGOT-GOT link function can be efficiently managed, and the SoftGOT-GOT link function can be utilized easily.



Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

“More Options!”

The GOT2000 engages various industrial devices to support maintenance

iQ Platform for maximum return on investment

Minimize TCO, Seamless integration, Maximize productivity, Transparent communications: these are common items that highlight the benefits of the iQ Platform. Enhanced further with the arrival of the new iQ-R Series Programmable Automation Controller (PAC), reducing costs and improving productivity can be realized even easier.

The iQ Platform minimizes TCO at all phases of the automation life cycle by improving development times, enhancing productivity, reducing maintenance costs, and making information more easily accessible. Seamless integration is the core part of the iQ Platform, having a highly intelligent controller platform that caters to different aspects of control all on the same base rack, and maximizing productivity by taking advantage of the high-speed iQ-R system bus, which further reduces operation cycle times. Transparent communications are achieved by supporting the industry-leading gigabit Ethernet-based open network, CC-Link IE. Seamless data flow is realized no matter what point on the network, ensuring the free flow of production data across the manufacturing site.

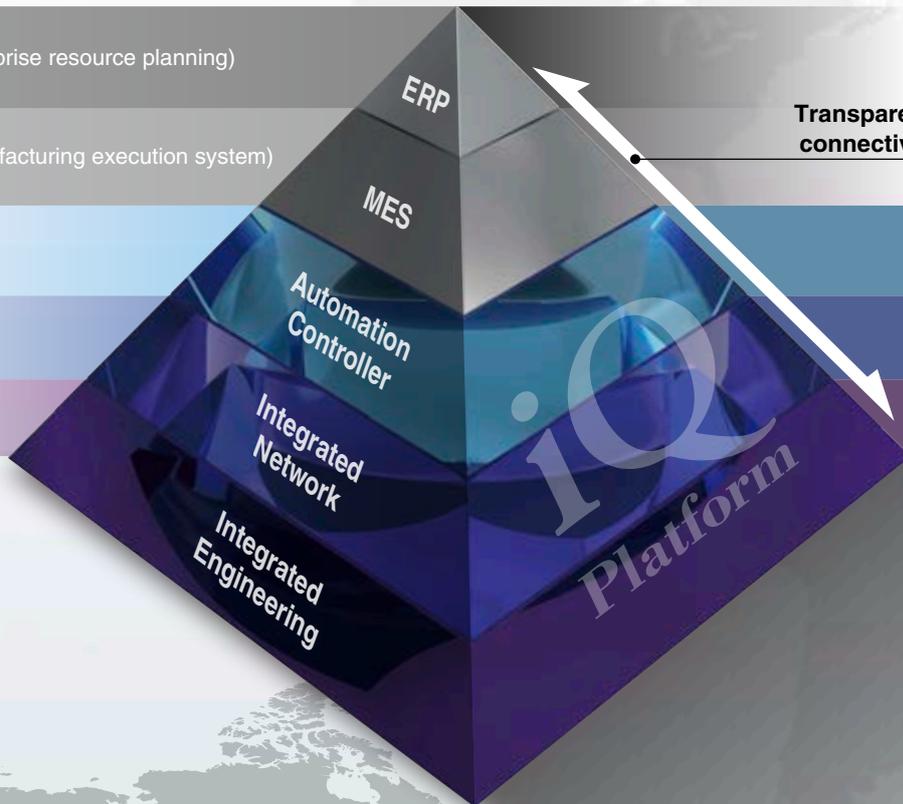
Taking these aspects and applying the new iQ-R Series controller into the mix, the iQ Platform raises processing capabilities to the next level for future intelligent manufacturing plants.



ERP (Enterprise resource planning)

MES (Manufacturing execution system)

Transparent connectivity





+ FA Solutions

personnel and reduce downtime.

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support



PAC & HMI

- 1 The new high-speed MELSEC iQ-R Series system bus is 40-times faster realizing improved system performance
- 2 Program standardization through function blocks and module labels
- 3 Powerful and robust security features



Network

- 1 CC-Link IE, 1Gbps high-speed and large bandwidth communications network (40-times faster link refresh)
- 2 Seamless connectivity within all levels of manufacturing with SLMP



Engineering

- 1 Automatic generation of network configuration diagram
- 2 Share parameters across multiple engineering software via MELSOFT Navigator
- 3 Changes to system labels shared between PAC and HMI

Mitsubishi Electric
FA Integrated Controller **iQ** Platform

“Easier Operations!”

The GOT2000 engages various industrial devices to support maintenance

Programmable Controller
MELSEC
designed with automation in mind

Simplify ladder monitoring and editing!

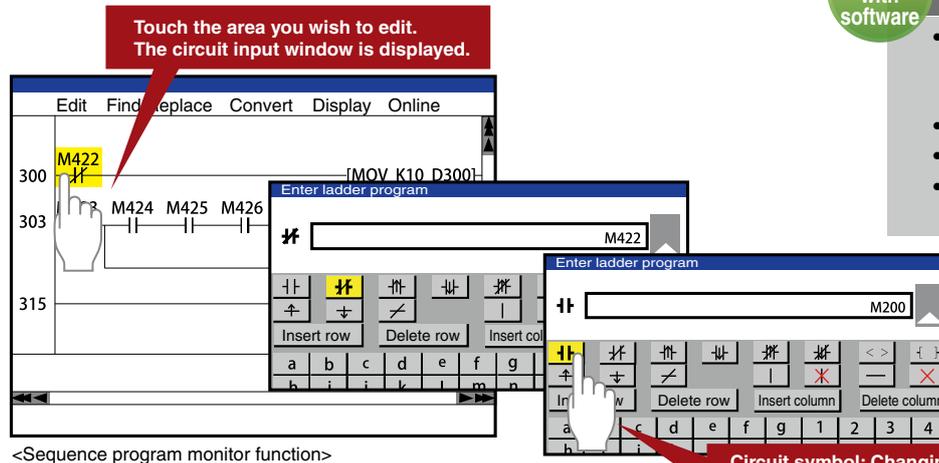


The MELSEC iQ-R Series, MELSEC-Q Series, and MELSEC-L Series sequence programs can be monitored and edited in ladder format using the sequence program monitor function.

In addition, the MELSEC-F Series sequence programs can be monitored in ladder format using the FX ladder monitor function.

Quickly perform maintenance operation on the GOT even if a personal computer is not readily available.

* The MELSEC iQ-R Series sequence program monitor function is coming soon.



Included with software

Provided sample screen data

- Programmable controller connection samples (RCPU **NEW**, QCPU, FXCPU **NEW**)
- CC-Link network monitors
- Device monitors
- Simple motion connection samples

<Sequence program monitor function>

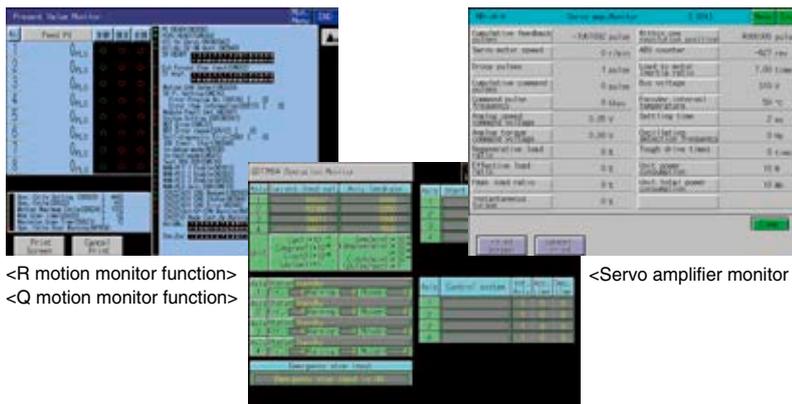
Circuit symbol: Changing from normally closed contact to normally open contact.
Device: Changing from M422 to M200

Easily monitor various controllers without creating screens!



General-purpose AC Servo
SERVO MOTOR & MOTORS
MELSERVO

Dedicated screens for motion controllers, positioning modules/simple motion modules, and servo amplifiers are available. Screens do not need to be created for monitoring motion controllers or changing servo parameters, monitoring or changing buffer memory values of positioning modules/simple motion modules, or monitoring or parameter setting of servo amplifiers.



<R motion monitor function>
<Q motion monitor function>

<Servo amplifier monitor function>

<Intelligent module monitor function>

Included with software

Provided sample screen data

- MR-J4-A connection sample
- MR-J4-A-RJ connection sample
- **Coming soon**
- MR-J3-A connection sample



personnel and reduce downtime.

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support



General-purpose Inverter
FREQROL

Easily debug your programs without opening the cabinet!

Connected with a personal computer, the GOT acts as a transparent gateway to enable startup and adjustment of equipment using FR Configurator2/FR Configurator. Users do not have to bother with opening the cabinet or changing cable connections.

Sample screen data on which the operation commands and parameters can be set are available.

Included with software

Provided sample screen data

- A800 connection sample
- F800 connection sample
- **NEW**
- D700 connection sample
- E700 connection sample
- F700P connection sample



<Sample screen>

Simplify speed control, position control, and parameter setting

Connected with a sensorless servo, the GOT can be used to perform speed control, position control, and parameter setting.

By connecting a personal computer to the front USB interface on the GOT, the GOT acts as a transparent gateway to enable startup and adjustment of equipment using FR Configurator. Users do not have to bother with opening the cabinet or changing cable connections.



SENSORLESS SERVO

Included with software

Provided sample screen data

- **NEW**
- E700EX connection sample



<Sample screen>

“Easier Operations!”



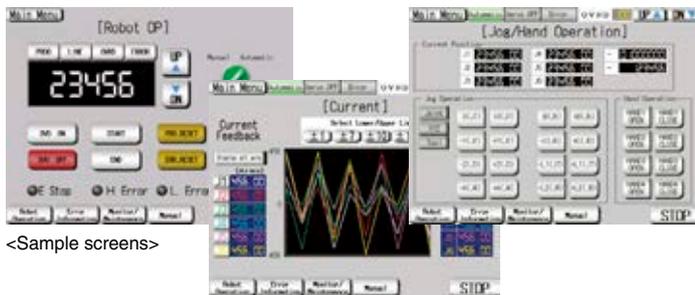
+ FA Solutions

Easy to use support functions for various industrial devices.



Easy connections and settings!

Sample screen data is available to read the controller status and control the operation directly from the GOT. The robot can be started and stopped, and the status and alarms can be monitored easily from the GOT.



<Sample screens>



Quickly recover from trouble! NEW

Backup the CNC C70 machining data and parameters onto the GOT's SD card or USB memory using the backup/restore function. Users can perform batch operation to restore the data to the CNC C70.

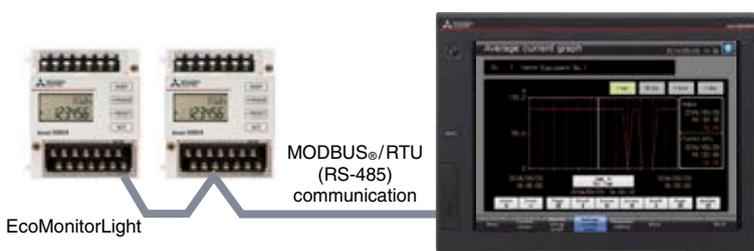


Eco Monitor Light

SS

Visualize energy data at worksite!

Easily monitor the energy data (current, power, electric energy, etc.) and change parameters. A single GOT unit manages the information of up to 31 measurement terminals: energy measuring unit EcoMonitorLight EMU4-BD1-MB/EMU4-HD1-MB or electric multi-measuring instrument ME110SSR-MB.



EcoMonitorLight

<Sample screen>

Memory card, etc.

Included with software

Provided sample screen data

- Energy measuring unit/
Electric multi-measuring instrument connection sample Coming soon

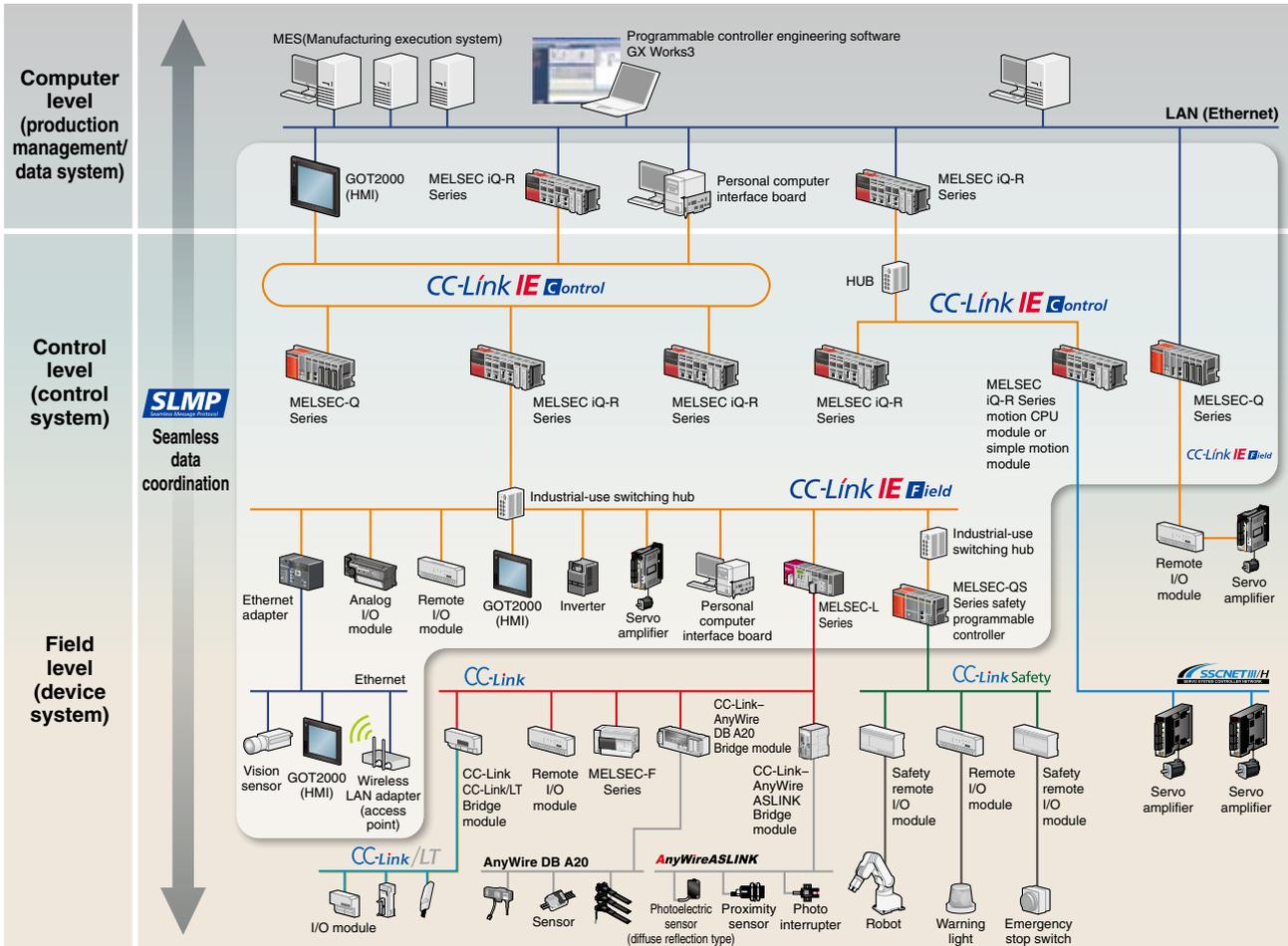
“More Options!”



+ FA Solutions

CC-Link IE reduces the cost of system construction

The CC-Link IE network family is a high-speed 1 Gbps control level and field level Ethernet topology industrial open network.



GOTs can be connected to the industrial open network CC-Link IE!

GOTs, programmable controllers, and other controllers can be connected via the CC-Link IE Controller Network or the CC-Link IE Field Network. Dedicated sample screens are available for checking the network status of the CC-Link IE Controller Network and the CC-Link IE Field Network. Communication status can easily be checked with the line monitor, the host information, or the station information without using a personal computer.

CC-Link IE Control

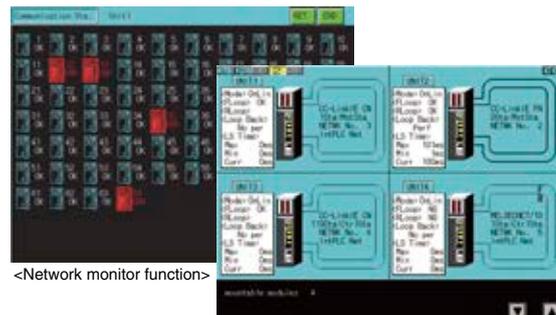
CC-Link IE Control is a high-reliability distributed control network designed to handle very large data communications (128 K word) over a high-speed (1Gbps) dual-loop optical cable topology.

- Communication unit on GOT: GT15-J71GP23-SX (normal station [optical loop])

CC-Link IE Field

CC-Link IE Field is a versatile gigabit Ethernet-based network integrating controller, I/O control, and motion control in a flexible topology supporting star, ring, and line configurations.

- Communication unit on GOT: GT15-J71GF13-T2 (intelligent device station)



* For the details of CLPA (CC-Link Partner Association), please refer to page 76.

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

“More Options!”

iQSS connects all types of sensors.

Sensors used on the manufacturing floor are becoming more advanced and complex.

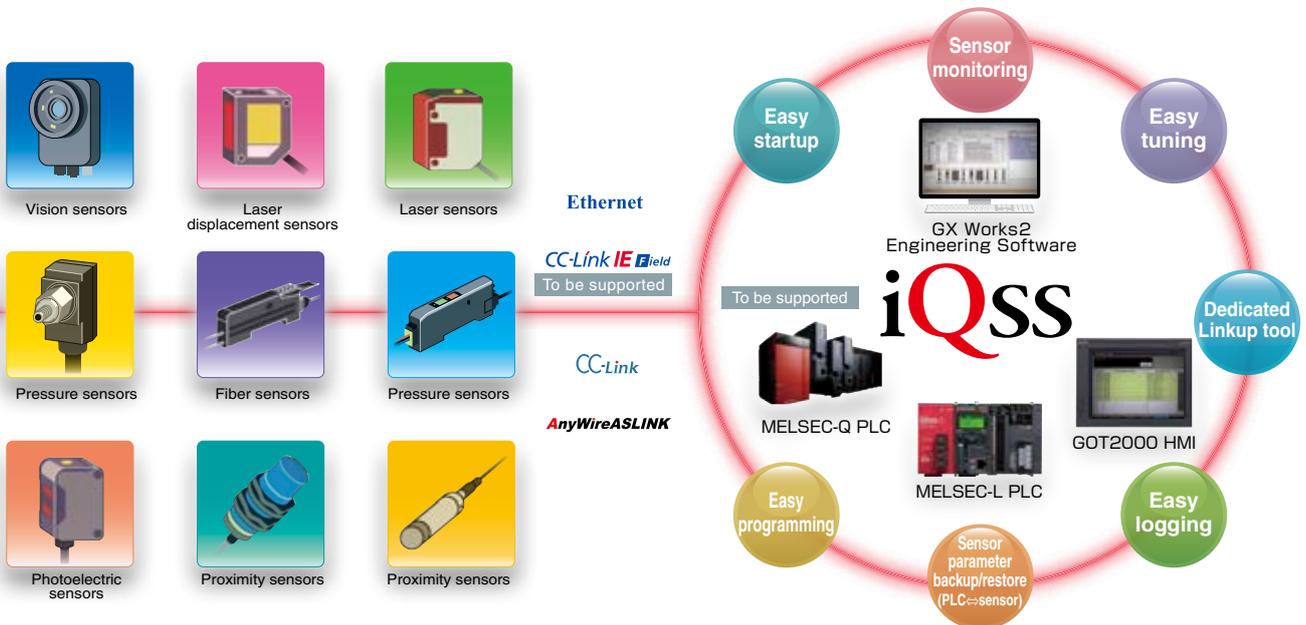
Managing your sensor configuration tools, and maintaining and starting up your equipment can be costly and hugely time consuming.

Through a collaboration with partner manufacturers, Mitsubishi Electric offers an **engineering tool** that enables intuitive configuration and maintenance of sensors.

This tool provides a solution that enhances the interaction between sensors and PLCs, HMIs and engineering softwares, which effectively reduces the customer's TCO*.

The solution is iQ Sensor Solution (iQSS).

* TCO: Total Cost of Ownership



COGNEX Panasonic

MEE

BALLUFF To be supported

**OPTEX
FA**

Anywire

**MITSUBISHI
ELECTRIC**

Powerful support for sensor startup, operation, and maintenance!



Tools differ for each sensor and it's bothersome to monitor the sensors or backup the parameters...

With GOT2000, the parameters for the iQSS partner sensors can be easily backed up onto the SD card mounted on the LCPU, and the parameters can be restored in the sensor!



Each sensor status cannot be monitored in a batch, so it takes time to confirm...

With GOT2000, the iQSS partner sensors can be displayed on one screen, so you can improve the monitoring efficiency!



Multiple parameters cannot be changed in a batch with the parameter configuration tool, so it takes time to complete adjustments...

With GOT2000, the sensor parameters can be set easily via the network, so you can shorten the work time!

* For details about iQSS, please refer to the iQ Sensor Solution Catalog (L(NA)16029ENG).

* For details about sensors, please contact our partner manufacturers.



+ FA Solutions

Line up

Features

Functions

FA Solutions

Specifications

Product list

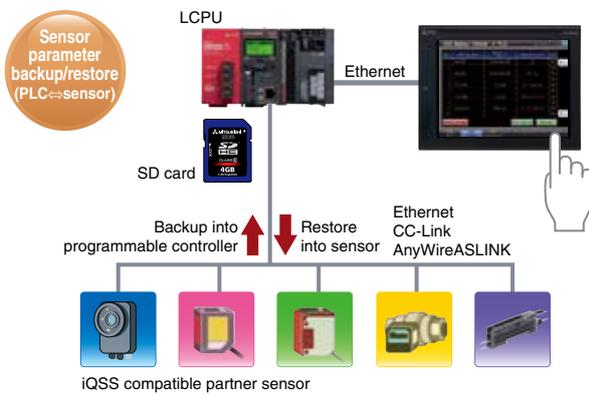
Support

Sample screens for startup, operation, and maintenance of the iQSS compatible partner sensors!

Previously It was a hassle to backup sensor parameters because each manufacturer has a different software

With GOT2000 Unify the configuration of all settings!

Backup and restore the parameters of any iQSS partner sensor (Ethernet, CC-Link, AnyWireASLINK) to the SD card mounted on the LCPU, reducing work time.



iQSS backup (sensor →programmable controller) screen

Previously Sensor status could not be monitored collectively and was time consuming

With GOT2000 The statuses are displayed on one screen!

iQSS partner sensors (AnyWireASLINK) are displayed on a single screen for comprehensive monitoring



Input signal monitor screen



Sensor detailed information (Parameter setting screen)

AnyWireASLINK line up

■ASLINKER



■ASLINKTERMINAL



■ASLINKAMP



■ASLINKSENSOR



Specifications

GT27

General specifications

Item	Specifications					
Operating ambient temperature *1	0 to 55°C *2					
Storage ambient temperature	-20 to 60°C					
Operating ambient humidity	10 to 90% RH, non-condensing					
Storage ambient humidity	10 to 90% RH, non-condensing					
Vibration resistance	Compliant with JIS B 3502 and IEC 61131-2	Under intermittent vibration	Frequency	Acceleration	Half-amplitude	10 times each in X, Y and Z directions
			5 to 8.4Hz	—	3.5mm	
		Under continuous vibration	5 to 8.4Hz	—	1.75mm	—
			8.4 to 150Hz	9.8m/s ²	—	
Shock resistance	Compliant with JIS B 3502, IEC 61131-2 (147 m/s ² (15G), 3 times each in X, Y and Z directions)					
Operating atmosphere	No oily smoke, corrosive gas or combustible gas, less conductive dust, away from direct sunlight (the same in storage)					
Operating altitude *3	2000m or less					
Installation location	Inside control panel					
Overvoltage category *4	II or less					
Pollution level *5	2 or less					
Cooling method	Self-cooling					
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.					

*1 The operating ambient temperature includes the temperature inside the enclosure of the control panel to which the GOT is installed.

*2 The maximum operating ambient temperature should be 5°C lower than that shown in the table on the left when connecting to a multimedia unit (GT27-MMR-Z), MELSECNET/H communication unit (GT15-J71LP23-25 or GT15-J71BR13) or CC-Link communication unit (GT15-J61BT13).

*3 Do not operate or store the GOT unit in pressurized environments where the pressure exceeds 0m elevation atmospheric pressure, as this could result in abnormal operation. Do not pressurize inside the control panel for air purge cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*4 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 2,500V for devices with ratings up to 300V.

*5 Index that indicates the level of foreign conductive matter in the operating environment of the device. Pollution level 2 denotes an environment contaminated only by non-conductive matter which may, under certain conditions, become temporarily conductive due to condensation.

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

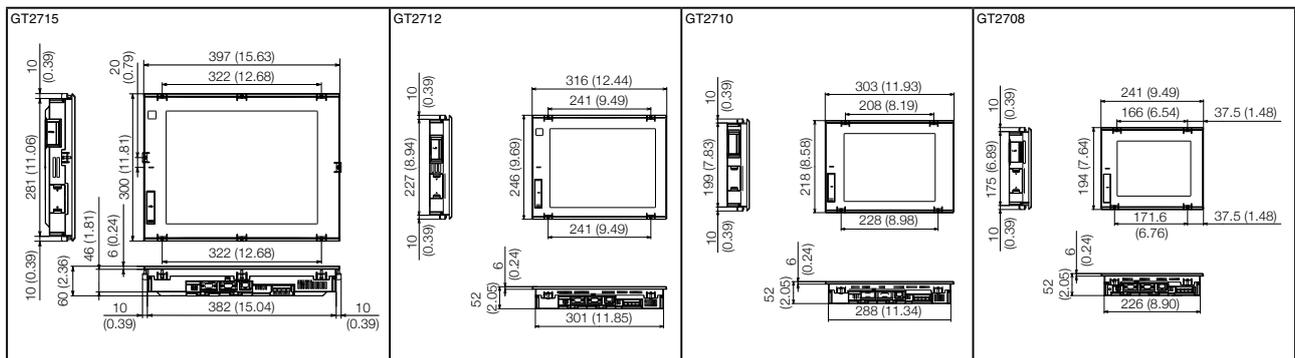
For inquiries relating to the status of conforming to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

Power supply specifications

Item	Specifications								
	GT2715-XTBA	GT2712-STBA GT2712-STWA	GT2710-STBA GT2710-VTBA GT2710-VTWA	GT2708-STBA GT2708-VTBA	GT2715-XTBD	GT2712-STBD GT2712-STWD	GT2710-STBD GT2710-VTBD GT2710-VTWD	GT2708-STBD GT2708-VTBD	
Power supply voltage	100 to 240VAC (+10%, -15%)				24VDC (+25%, -20%)				
Power supply frequency	50/60Hz ±5%								
Power consumption	Maximum load	51W or less	44W or less	41W or less	41W or less	48W or less	45W or less	42W or less	39W or less
	Stand alone	25W	19W	17W	15W	23W	18W	15W	13W
	Stand alone with backlight off	10W	10W	10W	10W	8W	8W	8W	8W
Inrush current	40A or less (3ms, ambient temperature 25°C, maximum load)	60A or less (2ms, ambient temperature 25°C, maximum load)			5A or less (20ms, ambient temperature 25°C, maximum load)				
Allowable momentary power failure time	Within 20ms (100VAC or more)				Within 10ms				
Noise immunity	Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz				Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz				
Withstand voltage	1500VAC for 1 minute between power supply terminal and ground				350VAC for 1 minute between power supply terminal and ground				
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)								

External dimensions

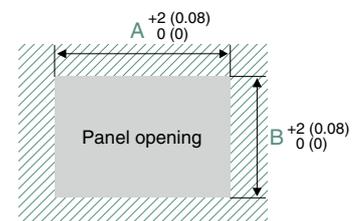
Unit: mm (inch)



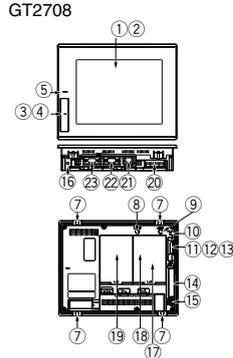
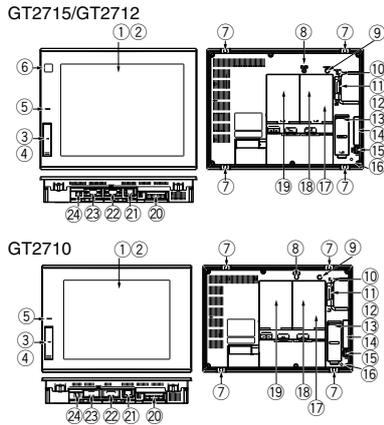
Panel cutting dimensions

Unit: mm (inch)

Screen size	Model	A	B	Remarks
15"	GT2715	383.5 (15.10)	282.5 (11.12)	Same dimensions as GT1695, GT1595.
12.1"	GT2712	302 (11.89)	228 (8.98)	Same dimensions as GT1685, GT1585, A985GOT.
10.4"	GT2710	289 (11.38)	200 (7.87)	Same dimensions as GT167□, GT157□, A97□GOT.
8.4"	GT2708	227 (8.94)	176 (6.93)	Same dimensions as GT1665, GT1565.



Components names



- ① Display screen
- ② Touch panel
- ③ USB interface (host/front face)
* Excluding white model
- ④ USB interface (device/front face)
* Excluding white model
- ⑤ POWER LED
- ⑥ Human sensor
- ⑦ Unit mounting bracket
- ⑧ Reset switch
- ⑨ S. MODE switch
- ⑩ SD card access LED
- ⑪ SD card interface
- ⑫ SD card cover
- ⑬ Battery
- ⑭ Side interface
- ⑮ USB interface (host/rear face)
- ⑯ Cable clamp mounting hole
- ⑰ Terminating resistor setting switch
(inside the cover)
- ⑱ Auxiliary extension I/F
- ⑲ Extension interface
- ⑳ Power supply terminal
- ㉑ Ethernet interface
- ㉒ RS-232 interface
- ㉓ RS-422/485 interface
- ㉔ USB interface (device/rear face)
* White model only

Performance specifications

Item	Specifications								
	GT2715-XTBA GT2715-XTBD	GT2712-STBA GT2712-STBD	GT2712-STWA GT2712-STWD	GT2710-STBA GT2710-STBD	GT2710-VTBA GT2710-VTBD	GT2710-VTWA GT2710-VTWD	GT2708-STBA GT2708-STBD	GT2708-VTBA GT2708-VTBD	
Display section *1 *2	TFT color LCD								
	Display device								
	Screen size	15"	12.1"	10.4"			8.4"		
	Resolution	XGA: 1024×768 dots	SVGA: 800×600 dots			VGA: 640×480 dots		SVGA: 800×600 dots	VGA: 640×480 dots
	Display size	304.1(12.0)(W)×228.1(8.98)(H) mm(inch)		211.2(8.315)(W)×158.4(6.236)(H) mm(inch)			170.9(6.728)(W)×128.2(5.047)(H) mm(inch)		
	Number of 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)		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 color	65536 colors							
Intensity adjustment	32-level adjustment								
Backlight	LED (not replaceable)								
Backlight life *4	Approx. 60000 hours (Time for display intensity reaches 50% at ambient temperature of 25°C)								
Touch panel *3	Type	Analog resistive film							
	Key size	Minimum 2 × 2 dots (per key)							
	Simultaneous press	Maximum 2 points							
Life	1 million times or more (operating force 0.98N or less)								
Human sensor	Detection distance	1m						-	
	Detection temperature	Temperature difference between human body and ambient air: 4°C or higher						-	
User memory	User memory capacity	Memory for storage (ROM): 57MB Memory for operation (RAM): 128MB							
	Life (No. of writings)	100000 times							
Internal clock accuracy	±90 sec/month (ambient temperature 25°C)								
Battery	GT11-50BAT lithium battery								
	Life	Approx. 5 years (ambient temperature 25°C)							
Built-in interface	RS-232	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male)							
	RS-422/485	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female)							
	Ethernet	1ch Data transfer method: 10BASE-T/100BASE-TX Connector shape: RJ-45 (modular jack)							
	USB (host)	2ch (front face/rear face)		1ch (rear face)	2ch (front face/rear face)		1ch (rear face)	2ch (front face/rear face)	
		Maximum transfer speed: High-Speed 480Mbps Connector shape: USB-A							
	USB (device)	1ch (front face)		1ch (rear face)	1ch (front face)		1ch (rear face)	1ch (front face)	
		Maximum transfer speed: High-Speed 480Mbps Connector shape: USB Mini-B							
	SD card	1ch SDHC compliant (maximum 32GB)							
Extension interface	For communication unit/option unit mounting								
Auxiliary extension I/F	For option unit mounting								
Side interface	For communication unit mounting								
Buzzer output	Single tone (tone, tone length adjustable)								
POWER LED	Emission color: 2 colors (blue, orange)								
Protective structure	Front: IP67F *5 In control panel: IP2X								
External dimensions	397(15.63)(W)×300(11.81)(H)×60(D) mm(inch)		316(12.44)(W)×246(9.69)(H)×52(2.05)(D) mm(inch)			303(11.93)(W)×218(8.58)(H)×52(2.05)(D) mm(inch)		241(9.49)(W)×194(7.64)(H)×52(2.05)(D) mm(inch)	
Panel cutting dimensions	383.5(15.10)(W)×282.5(11.12)(H) mm(inch)		302(11.89)(W)×228(8.98)(H) mm(inch)			289(11.38)(W)×200(7.87)(H) mm(inch)		227(8.94)(W)×176(6.93)(H) mm(inch)	
Weight (excl. mounting brackets)	4.5kg		2.4kg			2.1kg		1.5kg	
Compatible software package	GT Designer3 Version 1.122C or later								

*1 On LCD panels, bright dots (permanently lit) and black dots (never lit) generally appear. Because the number of display elements that exist on an LCD panel is large, it is not possible to reduce appearance of the bright and black dots to zero. Individual differences in LCD panels may cause differences in color, uneven brightness and flickering. Note that these are characteristics of LCD panels and it does not mean the products are defective or damaged.

*2 Flickering may occur due to vibration or shock, or depending on the display colors.

*3 The life of using a stylus pen is 100,000. Use a stylus pen meeting the following specifications.
• Material: Polyacetal resin • Pen point radius: 0.8mm or more

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

*5 Pressing "PUSH" mark firmly and locking the USB environmentally protective cover makes it conform to IP67F. (The USB interface conforms to IP2X when the cover is open.)
However, this does not guarantee protection in all users' environments. The unit may not be used in certain environments where it is subjected to splashing oil or chemicals for a long period of time or soaked in oil mist.

Specifications

GT25

General specifications

Item	Specifications					
Operating ambient temperature *1	0 to 55°C *2					
Storage ambient temperature	-20 to 60°C					
Operating ambient humidity	10 to 90% RH, non-condensing					
Storage ambient humidity	10 to 90% RH, non-condensing					
Vibration resistance	Compliant with JIS B 3502 and IEC 61131-2	Under intermittent vibration	Frequency	Acceleration	Half-amplitude	10 times each in X, Y and Z directions
			5 to 8.4Hz	–	3.5mm	
		Under continuous vibration	5 to 8.4Hz	–	1.75mm	–
			8.4 to 150Hz	4.9m/s ²	–	
Shock resistance	Compliant with JIS B 3502, IEC 61131-2 (147 m/s ² (15G), 3 times each in X, Y and Z directions)					
Operating atmosphere	No oily smoke, corrosive gas or combustible gas, less conductive dust, away from direct sunlight (the same in storage)					
Operating altitude *3	2000m or less					
Installation location	Inside control panel					
Overvoltage category *4	II or less					
Pollution level *5	2 or less					
Cooling method	Self-cooling					
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.					

*1 The operating ambient temperature includes the temperature inside the enclosure of the control panel to which the GOT is installed.

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

*3 Do not operate or store the GOT unit in pressurized environments where the pressure exceeds 0m elevation atmospheric pressure, as this could result in abnormal operation. Do not pressurize inside the control panel for air purge cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*4 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 2,500V for devices with ratings up to 300V.

*5 Index that indicates the level of foreign conductive matter in the operating environment of the device. Pollution level 2 denotes an environment contaminated only by non-conductive matter which may, under certain conditions, become temporarily conductive due to condensation.

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

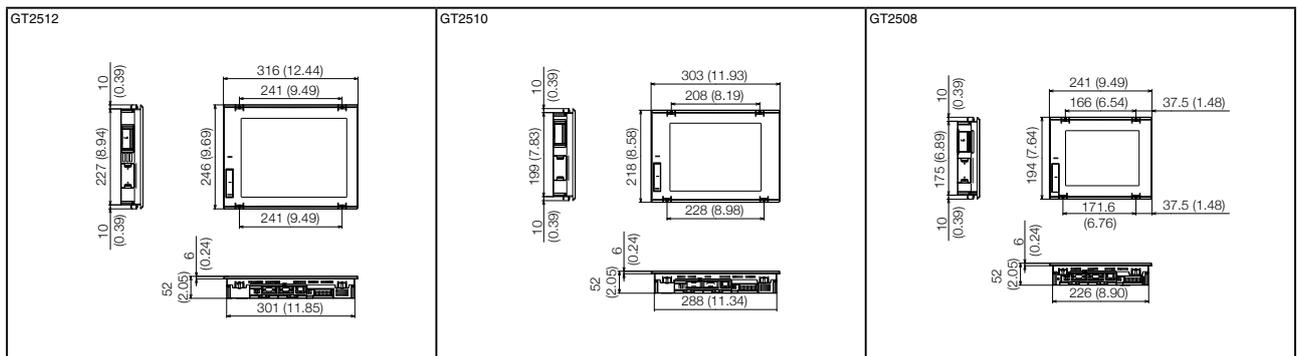
For inquiries relating to the status of conforming to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

Power supply specifications

Item	Specifications					
	GT2512-STBA	GT2510-VTBA GT2510-VTWA	GT2508-VTBA GT2508-VTWA	GT2512-STBD	GT2510-VTBD GT2510-VTWD	GT2508-VTBD GT2508-VTWD
Power supply voltage	100 to 240VAC (+10%, -15%)			24VDC (+25%, -20%)		
Power supply frequency	50/60Hz ±5%			–		
Power consumption	Maximum load	35W or less	34W or less	31W or less	33W or less	31W or less
	Stand alone	14W	12W	11W	13W	8W
	Stand alone with backlight off	7W	7W	7W	6W	6W
Inrush current	60A or less (2ms, ambient temperature 25°C, maximum load)			5A or less (20ms, ambient temperature 25°C, maximum load)		
Allowable momentary power failure time	Within 20ms (100VAC or more)			Within 10ms		
Noise immunity	Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz			Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz		
Withstand voltage	1500VAC for 1 minute between power supply terminal and ground			350VAC for 1 minute between power supply terminal and ground		
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)					

External dimensions

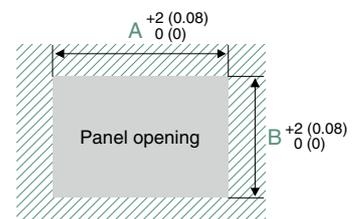
Unit: mm (inch)



Panel cutting dimensions

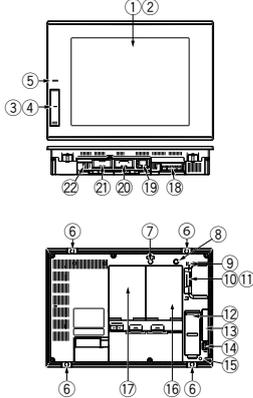
Unit: mm (inch)

Screen size	Model	A	B	Remarks
12.1"	GT2512	302 (11.89)	228 (8.98)	Same dimensions as GT1685, GT1585, A985GOT.
10.4"	GT2510	289 (11.38)	200 (7.87)	Same dimensions as GT167□, GT157□, A97□GOT.
8.4"	GT2508	227 (8.94)	176 (6.93)	Same dimensions as GT1665, GT1565.

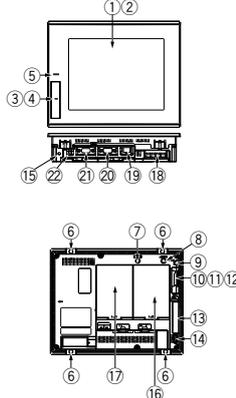


Components names

GT2512/GT2510



GT2508



- ① Display screen
- ② Touch panel
- ③ USB interface (host/front face)
* Excluding white model
- ④ USB interface (device/front face)
* Excluding white model
- ⑤ POWER LED
- ⑥ Unit mounting bracket
- ⑦ Reset switch
- ⑧ S. MODE switch
- ⑨ SD card access LED
- ⑩ SD card interface
- ⑪ SD card cover
- ⑫ Battery
- ⑬ Side interface
- ⑭ USB interface (host/rear face)
- ⑮ Cable clamp mounting hole
- ⑯ Terminating resistor setting switch
(inside the cover)
- ⑰ Extension interface
- ⑱ Power supply terminal
- ⑲ Ethernet interface
- ⑳ RS-232 interface
- ㉑ RS-422/485 interface
- ㉒ USB interface (device/rear face)
* White model only

Performance specifications

Item	Specifications					
	GT2512-STBA GT2512-STBD	GT2510-VTBA GT2510-VTBD	GT2510-VTWA GT2510-VTWD	GT2508-VTBA GT2508-VTBD	GT2508-VTWA GT2508-VTWD	
Display section *1 *2	Display device	TFT color LCD				
	Screen size	12.1"	10.4"		8.4"	
	Resolution	SVGA: 800x600 dots	VGA: 640x480 dots			
	Display size	246(9.685)(W)× 184.5(7.264)(H) mm(inch)	211.2(8.315)(W)×158.4(6.236)(H) mm(inch)		170.9(6.728)(W) x 128.2(5.047)(H) mm(inch)	
	Number of characters	16-dot standard font: 50 chars x 37 lines (2-byte) 12-dot standard font: 66 chars. x 50 lines (2-byte)	16-dot standard font: 40 chars. x 30 lines (2-byte) 12-dot standard font: 53 chars. x 40 lines (2-byte)			
	Display color	65536 colors				
	Intensity adjustment	32-level adjustment				
	Backlight	LED (not replaceable)				
Backlight life *4	Approx. 60000 hours (Time for display intensity reaches 50% at ambient temperature of 25°C)					
Touch panel *3	Type	Analog resistive film				
	Key size	Minimum 2 x 2 dots (per key)				
	Simultaneous press	Simultaneous press prohibited *5 (only 1 point can be pressed)				
Life	1 million times or more (operating force 0.98N or less)					
User memory	User memory capacity	Memory for storage (ROM): 32MB Memory for operation (RAM): 80MB				
	Life (No. of writings)	100000 times				
Internal clock accuracy	±90 sec/month (ambient temperature 25°C)					
Battery	Type	GT11-50BAT lithium battery				
	Life	Approx. 5 years (ambient temperature 25°C)				
Built-in interface	RS-232	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male)				
	RS-422/485	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female)				
	Ethernet	1ch Data transfer method: 10BASE-T/100BASE-TX Connector shape: RJ-45 (modular jack)				
	USB (host)	2ch (front face/rear face)	2ch (front face/rear face)	1ch (rear face)	2ch (front face/rear face)	1ch (rear face)
		Maximum transfer speed: High-Speed 480Mbps Connector shape: USB-A				
	USB (device)	1ch (front face)	1ch (front face)	1ch (rear face)	1ch (front face)	1ch (rear face)
		Maximum transfer speed: High-Speed 480Mbps Connector shape: USB Mini-B				
	SD card	1ch SDHC compliant (maximum 32GB)				
Extension interface	For communication unit/option unit mounting					
Side interface	For communication unit mounting					
Buzzer output	Single tone (tone, tone length adjustable)					
POWER LED	Emission color: 2 colors (blue, orange)					
Protective structure	Front: IP67F *6 In control panel: IP2X					
External dimensions	316(12.44)(W)×246(9.69)(H) ×52(2.05)(D) mm(inch)	303(11.93)(W)×218(8.58)(H)×52(2.05)(D) mm(inch)		241(9.49)(W)×194(7.64)(H)×52(2.05)(D) mm(inch)		
Panel cutting dimensions	302(11.89)(W)×228(8.98)(H) mm(inch)	289(11.38)(W)×200(7.87)(H) mm(inch)		227(8.94)(W)×176(6.93)(H) mm(inch)		
Weight (excl. mounting brackets)	2.4kg	2.1kg		1.5kg		
Compatible software package	GT Designer3 Version 1.122C or later					

*1 On LCD panels, bright dots (permanently lit) and black dots (never lit) generally appear. Because the number of display elements that exist on an LCD panel is large, it is not possible to reduce appearance of the bright and black dots to zero. Individual differences in LCD panels may cause differences in color, uneven brightness and flickering. Note that these are characteristics of LCD panels and it does not mean the products are defective or damaged.

*2 Flickering may occur due to vibration or shock, or depending on the display colors.

*3 The life of using a stylus pen is 100,000. Use a stylus pen meeting the following specifications.
• Material: Polyacetal resin • Pen point radius: 0.8mm or more

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

*5 When 2 points on the touch panel are pressed simultaneously, if a switch is located the middle of the 2 points then the switch will be activated. Therefore, avoid pressing 2 points on the touch panel simultaneously.

*6 Pressing "PUSH" mark firmly and locking the USB environmentally protective cover makes it conform to IP67F. (The USB interface conforms to IP2X when the cover is open.)

However, this does not guarantee protection in all users' environments. The unit may not be used in certain environments where it is subjected to splashing oil or chemicals for a long period of time or soaked in oil mist.

GT23

General specifications

Item	Specifications					
Operating ambient temperature *1	0 to 55°C					
Storage ambient temperature	-20 to 60°C					
Operating ambient humidity	10 to 90% RH, non-condensing *2					
Storage ambient humidity	10 to 90% RH, non-condensing *2					
Vibration resistance	Compliant with JIS B 3502 and IEC 61131-2	Under intermittent vibration	Frequency	Acceleration	Half-amplitude	Sweep count 10 times each in X, Y and Z directions
			5 to 8.4Hz	—	3.5mm	
		Under continuous vibration	5 to 8.4Hz	—	1.75mm	—
			8.4 to 150Hz	9.8m/s ²	—	
Shock resistance	Compliant with JIS B 3502, IEC 61131-2 (147 m/s ² (15G), 3 times each in X, Y and Z directions)					
Operating atmosphere	No oily smoke, corrosive gas or combustible gas, less conductive dust, away from direct sunlight (the same in storage)					
Operating altitude *3	2000m or less					
Installation location	Inside control panel					
Overvoltage category *4	II or less					
Pollution level *5	2 or less					
Cooling method	Self-cooling					
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.					

*1 The operating ambient temperature includes the temperature inside the enclosure of the control panel to which the GOT is installed.

*2 If ambient temperature exceeds 40°C, absolute humidity should not exceed 90% at 40°C.

*3 Do not operate or store the GOT unit in pressurized environments where the pressure exceeds 0m elevation atmospheric pressure, as this could result in abnormal operation. Do not pressurize inside the control panel for air purge cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*4 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 2,500V for devices with ratings up to 300V.

*5 Index that indicates the level of foreign conductive matter in the operating environment of the device. Pollution level 2 denotes an environment contaminated only by non-conductive matter which may, under certain conditions, become temporarily conductive due to condensation.

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

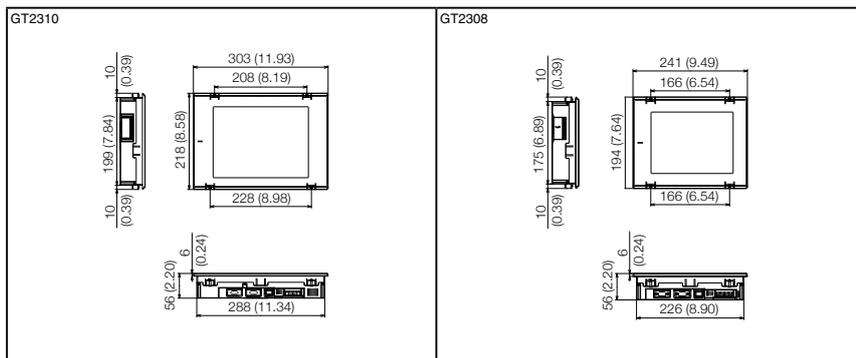
For inquiries relating to the status of conforming to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

Power supply specifications

Item	Specifications			
	GT2310-VTBA	GT2308-VTBA	GT2310-VTBD	GT2308-VTBD
Power supply voltage	100 to 240VAC (+10%, -15%)		24VDC (+25%, -20%)	
Power supply frequency	50/60Hz ±5%			
Power consumption	Maximum load	18W or less	11W or less	16W or less
	Stand alone	15W	9W	13W
	Stand alone with backlight off	8W	6W	7W
Inrush current	40A or less (4ms, ambient temperature 25°C, maximum load)		40A or less (2ms, ambient temperature 25°C, maximum load)	
Allowable momentary power failure time	Within 20ms (100VAC or more)		Within 10ms	
Noise immunity	Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz		Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz	
Withstand voltage	1500VAC for 1 minute between AC external terminal and ground		350VAC for 1 minute between power supply terminal and ground	
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)			

External dimensions

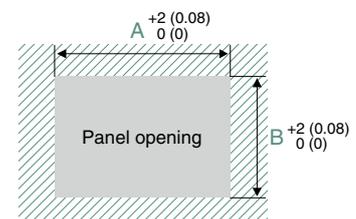
Unit: mm (inch)



Panel cutting dimensions

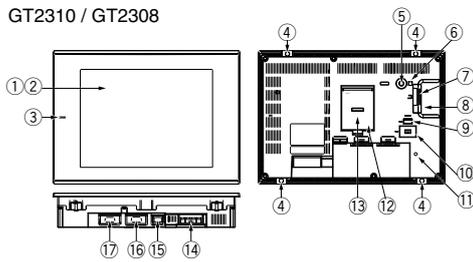
Unit: mm (inch)

Screen size	Model	A	B	Remarks
10.4"	GT2310	289 (11.38)	200 (7.87)	Same dimensions as GT167□, GT157□, A97□GOT.
8.4"	GT2308	227 (8.94)	176 (6.93)	Same dimensions as GT1665, GT1565.



Components names

GT2310 / GT2308



- ① Display screen
- ② Touch panel
- ③ POWER LED
- ④ Unit mounting bracket
- ⑤ S. MODE switch
- ⑥ SD card access LED
- ⑦ SD card interface
- ⑧ SD card cover
- ⑨ USB interface (host)
- ⑩ USB interface (device)
- ⑪ Cable clamp mounting hole
- ⑫ Terminating resistor setting switch (inside the cover)
- ⑬ Battery
- ⑭ Power supply terminal
- ⑮ Ethernet interface
- ⑯ RS-232 interface
- ⑰ RS-422/485 interface

Performance specifications

Item	Specifications		
	GT2310-VTBA GT2310-VTBD	GT2308-VTBA GT2308-VTBD	
Display section *1 *2	Display device	TFT color LCD	
	Screen size	10.4"	
	Resolution	VGA: 640x480 dots	
	Display size	211.2(8.315)(W)x158.4(6.236)(H) mm(inch)	
	Number of characters	16-dot standard font: 40 chars. x 30 lines (2-byte) 12-dot standard font: 53 chars. x 40 lines (2-byte)	
	Display color	65536 colors	
	Intensity adjustment	16-level adjustment	
	Backlight	LED (not replaceable)	
Backlight life *4	Approx. 50000 hours (Time for display intensity reaches 50% at ambient temperature of 25°C)		
Touch panel *3	Type	Analog resistive film	
	Key size	Minimum 2 x 2 dots (per key)	
	Simultaneous press	Simultaneous press prohibited *5 (only 1 point can be pressed)	
	Life	1 million times or more (operating force 0.98N or less)	
User memory	User memory capacity	Memory for storage (ROM): 9MB Memory for operation (RAM): 9MB	
	Life (No. of writings)	100000 times	
Internal clock accuracy	±90 sec/month (ambient temperature 25°C)		
Battery	GT11-50BAT lithium battery		
	Life	Approx. 5 years (ambient temperature 25°C)	
Built-in interface	RS-232	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male)	
	RS-422/485	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female)	
	Ethernet	1ch Data transfer method: 10BASE-T/100BASE-TX Connector shape: RJ-45 (modular jack)	
	USB (host)	1ch Maximum transfer speed: Full-Speed 12Mbps Connector shape: USB-A	
	USB (device)	1ch Maximum transfer speed: Full-Speed 12Mbps Connector shape: USB Mini-B	
SD card	1ch SDHC compliant (maximum 32GB)		
Buzzer output	Single tone (tone length adjustable)		
POWER LED	Emission color: 2 colors (blue, orange)		
Protective structure	Front: IP67F *6 In control panel: IP2X		
External dimensions	303(11.93)(W)x218(8.58)(H)x56(2.20)(D) mm(inch)	241(9.49)(W)x194(7.64)(H)x56(2.20)(D) mm(inch)	
Panel cutting dimensions	289(11.38)(W)x200(7.87)(H) mm(inch)		227(8.94)(W)x176(6.93)(H) mm(inch)
Weight (excl. mounting brackets)	1.9kg		1.5kg
Compatible software package	GT Designer3 Version1.122C or later		

*1 On LCD panels, bright dots (permanently lit) and black dots (never lit) generally appear. Because the number of display elements that exist on an LCD panel is large, it is not possible to reduce appearance of the bright and black dots to zero. Individual differences in LCD panels may cause differences in color, uneven brightness and flickering. Note that these are characteristics of LCD panels and it does not mean the products are defective or damaged.

*2 Flickering may occur due to vibration or shock, or depending on the display colors.

*3 The life of using a stylus pen is 100,000. Use a stylus pen meeting the following specifications.
• Material: Polyacetal resin • Pen point radius: 0.8mm or more

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

*5 When 2 points on the touch panel are pressed simultaneously, if a switch is located the middle of the 2 points then the switch will be activated. Therefore, avoid pressing 2 points on the touch panel simultaneously.

*6 This does not guarantee protection in all users' environments. The unit may not be used in certain environments where it is subjected to splashing oil or chemicals for a long period of time or soaked in oil mist.

Specifications

GT21

General specifications

Item	Specifications					
Operating ambient temperature *1	0 to 55°C (horizontal installation), 0 to 50°C (vertical installation)					
Storage ambient temperature	-20 to 60°C					
Operating ambient humidity	10 to 90% RH, non-condensing *2					
Storage ambient humidity	10 to 90% RH, non-condensing *2					
Vibration resistance	Compliant with JIS B 3502 and IEC 61131-2	Under intermittent vibration	Frequency	Acceleration	Half-amplitude	10 times each in X, Y and Z directions
			5 to 8.4Hz	-	3.5mm	
		Under continuous vibration	5 to 8.4Hz	-	1.75mm	-
			5 to 8.4Hz	4.9m/s ²	-	
Shock resistance	Compliant with JIS B 3502, IEC 61131-2 (147 m/s ² (15G), 3 times each in X, Y and Z directions)					
Operating atmosphere	No oily smoke, corrosive gas or combustible gas, less conductive dust, away from direct sunlight (the same in storage)					
Operating altitude *3	2000m or less					
Installation location	Inside control panel					
Overvoltage category *4	II or less					
Pollution level *5	2 or less					
Cooling method	Self-cooling					
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.					

*1 The operating ambient temperature includes the temperature inside the enclosure of the control panel to which the GOT is installed.

*2 If ambient temperature exceeds 40°C, absolute humidity should not exceed 90% at 40°C.

*3 Do not operate or store the GOT unit in pressurized environments where the pressure exceeds 0m elevation atmospheric pressure, as this could result in abnormal operation. Do not pressurize inside the control panel for air purge cleaning. The pressure could raise the surface sheet, making the touch panel difficult to operate or causing the sheet to come off.

*4 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 2,500V for devices with ratings up to 300V.

*5 Index that indicates the level of foreign conductive matter in the operating environment of the device. Pollution level 2 denotes an environment contaminated only by non-conductive matter which may, under certain conditions, become temporarily conductive due to condensation.

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

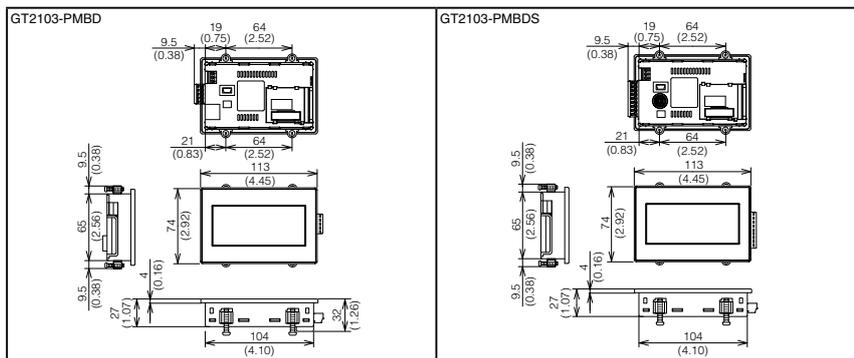
For inquiries relating to the status of conforming to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

Power supply specifications

Item	Specifications	
	GT2103-PMBD	GT2103-PMBDS
Power supply voltage	24VDC (+10%, -15%)	
Power supply frequency	-	
Power consumption	Maximum load	1.9W or less
	Stand alone with backlight off	2.0W
Inrush current	30A or less (1ms, ambient temperature 25°C, maximum load)	
Allowable momentary power failure time	Within 5ms	
Noise immunity	Noise voltage 1000Vp-p, noise width 1μs by noise simulator with noise frequency 30 to 100Hz	
Withstand voltage	500VAC for 1 minute between power supply terminal and ground	
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)	

External dimensions

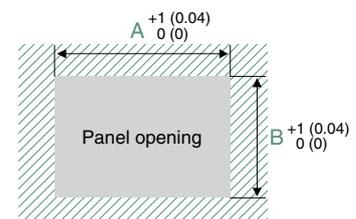
Unit: mm (inch)



Panel cutting dimensions

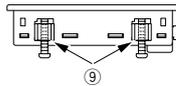
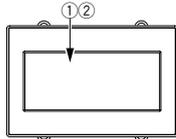
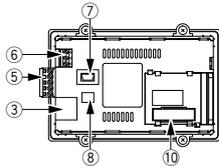
Unit: mm (inch)

Screen size	Model	A	B	Remarks
3.8"	GT2103	105 (4.14)	66 (2.60)	Same dimensions as GT1020.

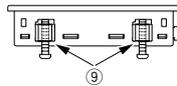
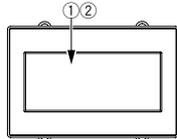
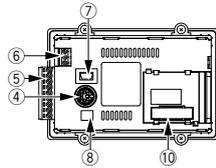


Components names

GT2103-PMBD



GT2103-PMBDS



- ① Display screen
- ② Touch panel
- ③ Ethernet interface
- ④ RS-232 interface
- ⑤ RS-422/485 interface
- ⑥ Power supply terminal
- ⑦ USB interface (device)
- ⑧ Terminating resistor setting switch
- ⑨ Unit mounting bracket
- ⑩ SD card unit connector (inside the cover)

Performance specifications

Item	Specifications		
	GT2103-PMBD	GT2103-PMBDS	
Display section *1 *2	Display device	TFT monochrome LCD	
	Screen size	3.8"	
	Resolution	320x128 dots	
	Display size	89.0(3.51)(W)x35.6(1.41)(H) mm(inch)	
	Number of characters	16-dot standard font: 20 chars. x 8 lines (2-byte) 12-dot standard font: 26 chars. x 10 lines (2-byte)	
	Display color	Monochrome (black/white) 32 shade grayscale	
	Intensity adjustment	32-level adjustment	
	Backlight	5-color LED (white/green/pink/orange/red) (not replaceable)	
Touch panel *3	Backlight life *4	Approx. 50000 hours (Time for display intensity reaches 50% at ambient temperature of 25°C)	
	Type	Analog resistive film	
	Key size	Minimum 2 x 2 dots (per key)	
	Simultaneous press	Simultaneous press prohibited *5 (only 1 point can be pressed)	
User memory	Life	1 million times or more (operating force 0.98N or less)	
	User memory capacity	Memory for storage (ROM): 3MB	
Built-in interface	Life (No. of writings)	100000 times	
	RS-232	-	
	RS-422/485	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: connector terminal block 5-pin	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: connector terminal block 9-pin
	Ethernet	1ch Data transfer method: 10BASE-T/100BASE-TX Connector shape: RJ-45 (modular jack)	-
	USB (device)	1ch Maximum transfer speed: Full-Speed 12Mbps Connector shape: USB Mini-B	
	SD card *6	1ch SDHC compliant (maximum 32GB)	
Buzzer output	Single tone (tone length adjustable)		
Protective structure	Front: IP67F *7 In control panel: IP2X		
External dimensions	113(4.45)(W)x74(2.92)(H)x32(1.26)(D) mm(inch)	113(4.45)(W)x74(2.92)(H)x27(1.07)(D) mm(inch) *8	
Panel cutting dimensions	105(4.14)(W)x66(2.60)(H) mm(inch)		
Weight (excl. mounting brackets)	0.2kg		
Compatible software package	GT Designer3 Version1.122C or later		

*1 On LCD panels, bright dots (permanently lit) and black dots (never lit) generally appear. Because the number of display elements that exist on an LCD panel is large, it is not possible to reduce appearance of the bright and black dots to zero. Individual differences in LCD panels may cause differences in color, uneven brightness and flickering. Note that these are characteristics of LCD panels and it does not mean the products are defective or damaged.

*2 Flickering may occur due to vibration or shock, or depending on the display colors.

*3 The life of using a stylus pen is 100,000. Use a stylus pen meeting the following specifications.
• Material: Polyacetal resin • Pen point radius: 0.8mm or more

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

*5 When 2 points on the touch panel are pressed simultaneously, if a switch is located the middle of the 2 points then the switch will be activated. Therefore, avoid pressing 2 points on the touch panel simultaneously.

*6 A separate SD card unit (GT21-03SDCD) must be mounted.

*7 This does not guarantee protection in all users' environments. The unit may not be used in certain environments where it is subjected to splashing oil or chemicals for a long period of time or soaked in oil mist.

*8 When an SD card unit (GT21-03SDCD) is mounted, external dimensions are 113(4.45)(W)x74(2.92)(H)x32(1.26)(D) mm(inch).

MELSOFT GT Works3 Version1 (English Version) operating environment

Item	Description
Personal computer	Personal computer that Windows® runs on.
OS (English, Simplified Chinese, Traditional Chinese, Korean, or German version)	Microsoft® Windows® 8.1 (Enterprise, Pro) (64 bit/32 bit) *1 *2 *4 *5 *6 Microsoft® Windows® 8.1 (64 bit/32 bit) *1 *2 *4 *5 Microsoft® Windows® 8 (Enterprise, Pro) (64 bit/32 bit) *1 *2 *4 *5 *6 Microsoft® Windows® 8 (64 bit/32 bit) *1 *2 *4 *5 Microsoft® Windows® 7 (Ultimate, Enterprise, Professional) (64 bit/32 bit) *1 *2 *3 *4 Microsoft® Windows® 7 (Home Premium) (64 bit/32 bit) *1 *2 *4 Microsoft® Windows® 7 (Starter) (32 bit) *1 *2 Microsoft® Windows Vista® (Ultimate, Enterprise, Business, Home Premium, Home Basic) (32 bit) Service Pack1 or later *1 *2 Microsoft® Windows® XP (Professional, Home Edition) (32 bit) Service Pack3 or later *1 *2
CPU	1GHz or faster recommended
Memory	For Windows® 8.1 (64 bit), Windows® 8 (64 bit), Windows® 7 (64 bit): 2GB or more recommended For Windows® 8.1 (32 bit), Windows® 8 (32 bit), Windows® 7 (32 bit), Windows Vista® (32 bit): 1GB or more recommended For Windows® XP: 512MB or more recommended
Display	Resolution XGA (1024 × 768 dots) or higher
Hard disk space	For installation: 2GB or more recommended For execution: 512MB or more recommended
Display color	High Color (16 bits) or higher
Other hardware	Use the hardware compatible with the above OS. • For installation: mouse, keyboard, DVD-ROM drive • For execution: mouse, keyboard • For printing: printer Use the following hardware when required. • For simulation (only when outputting the buzzer sound): sound card, speaker
Compatible GOT	GOT2000 series, GOT1000 series
Applicable software version	GT Works3 Version1.122C or later

- *1 For installation, the administrator authority is required.
For Windows® 8.1, Windows® 8, Windows® 7 and Windows Vista®, the standard user or administrator account is required.
To interact GT Designer3 with other MELSOFT applications which are used under the administrator authority, use GT Designer3 under the administrator authority.
- *2 The following functions are not supported.
• Application start in Windows compatibility mode • Fast user switching • Change your desktop themes (fonts) • Remote desktop
• DPI setting other than the normal size (For Windows® XP and Windows Vista®)
• Setting the size of text and illustrations on the screen to any size other than [Small-100%] (For Windows® 8.1, Windows® 8, and Windows® 7)
- *3 Windows XP Mode is not supported.
*4 Windows Touch or Touch is not supported.
*5 Modern UI Style is not supported.
*6 Hyper-V is not supported.

GT SoftGOT2000 Version1 (English Version) operating environment

Item	Description
Personal computer	Personal computer that Windows® runs on. PC CPU module manufactured by CONTEC CO., LTD (PPC-852-21G, PPC-852-22F) *8
OS (English, Simplified Chinese, Traditional Chinese, Korean, or German version)	Microsoft® Windows® 8.1 (Enterprise, Pro) (64 bit/32 bit) *1 *2 *4 *5 *6 Microsoft® Windows® 8.1 (64 bit/32 bit) *1 *2 *4 *5 Microsoft® Windows® 8 (Enterprise, Pro) (64 bit/32 bit) *1 *2 *4 *5 *6 Microsoft® Windows® 8 (64 bit/32 bit) *1 *2 *4 *5 Microsoft® Windows® 7 (Ultimate, Enterprise, Professional) (64 bit/32 bit) *1 *2 *3 *4 Microsoft® Windows® 7 (Home Premium) (64 bit/32 bit) *1 *2 *4 Microsoft® Windows® 7 (Starter) (32 bit) *1 *2 Microsoft® Windows Vista® (Ultimate, Enterprise, Business, Home Premium, Home Basic) (32 bit) Service Pack1 or later *1 *2 Microsoft® Windows® XP (Professional, Home Edition) (32 bit) Service Pack3 or later *1 *2 Microsoft® Windows® XP Embedded (32 bit) *1 *2 *7
CPU	1GHz or more recommended
Memory	For Windows® 8.1 (64 bit), Windows® 8 (64 bit), Windows® 7 (64 bit): 2GB or more recommended For Windows® 8.1 (32 bit), Windows® 8 (32 bit), Windows® 7 (32 bit), Windows Vista® (32 bit): 1GB or more recommended For Windows® XP: 512MB or more recommended
Display	Resolution VGA (640 × 480 dots) or higher
Hard disk space *9	For installation: 2GB or more recommended For execution: 512MB or more recommended
Display color	High Color (16 bits) or higher
Hardware	GT27-SGTKEY-U (license key (for USB port))
Other software	The following software is required to create the project data. • GT Designer3 Version1.100E or later *10 The following software is required for interaction with PX Developer. • PX Developer Version1.40S or later • GT Designer3 Version1.105K or later *10 The following software is required to connect with GX Simulator. • GX Simulator Version5.00A or later The following software is required to connect with GX Simulator2. • GX Works2 Version1.12N or later The following software is required to connect with MT Simulator2. • MT Works2 Version 1.70Y or later
Other hardware	Use the hardware compatible with the above OS. • For installation: mouse, keyboard, DVD-ROM drive • For execution: mouse, keyboard • For printing: printer Prepare the following hardware if necessary. • For execution (only when outputting buzzer sound or others): sound function, speaker

- *1 Administrator authority is required for installing and using GT SoftGOT2000.
When interacting other applications, use the applications with the administrator authority.
- *2 The following functions are not supported.
• Application start in Windows compatibility mode • Fast user switching • Change your desktop themes (fonts) • Remote desktop
• DPI setting other than the normal size (For Windows® XP and Windows Vista®)
• Setting the size of text and illustrations on the screen to any size other than [Small-100%] (For Windows® 8.1, Windows® 8, and Windows® 7)
- *3 Windows XP Mode is not supported.
*4 Windows Touch or Touch is not supported.
*5 Modern UI Style is not supported.
*6 Hyper-V is not supported.
*7 For using the PPC-852-22F, GT SoftGOT2000 can be used on the PPC-852-22F with the OS preinstalled only.
*8 Refer to the manual of the PC CPU module to be used.
*9 When using GT Designer3 or PX Developer besides GT SoftGOT2000, additional free space is required.
For the available space required when using GT Designer3, please refer to the GT Works3 operating environment.
For the available space required when using monitor tool functions of PX Developer, please refer to the following manual.
⇒PX Developer Version □ Operating Manual (Monitor Tool)
When using a user-created application, free space is required separately.
- *10 Use GT Designer3 included in GT Works3 that contains GT SoftGOT2000.

For details of functions, supported controllers, and connection types, please refer to the GOT2000 Series Manual or Help.

● : Supported - : Not supported

Function list

Category	Function name	Necessary devices ^{*1}	GT27	GT25	GT23	GT21	GT SoftGOT2000	
Figure/object functions	Figure		●	●	●	●	●	
	Logo text		●	●	●	●	●	
	Touch switch		●	●	●	●	●	
	Lamp		●	●	●	●	●	
	Numerical display, Numerical input		●	●	●	●	●	
	Text display, Text input		●	●	●	●	●	
	Date display, Time display	(Battery)	●	●	●	●	●	
	Comment display		●	●	●	●	●	
	Parts display	(SD card or USB memory)	●	●	●	●	●	
	Parts movement	(SD card or USB memory)	●	●	●	●	●	
	Historical data list display		●	●	●	●	●	
	Simple alarm display		●	●	●	●	●	
	System alarm display		●	●	●	-	●	
	Alarm display (user)	(SD card or USB memory, battery)	●	●	●	-	●	
	Alarm display (system)	(SD card or USB memory, battery)	●	●	●	-	●	
	Level		●	●	●	●	●	
	Panelmeter		●	●	●	●	●	
	Line graph		●	●	●	●	●	
	Trend graph		●	●	●	●	●	
	Bar graph		●	●	●	●	●	
	Statistic bar graph		●	●	●	●	●	
	Statistic pie graph		●	●	●	●	●	
	Scatter graph		●	●	●	●	●	
	Historical trend graph		●	●	●	●	●	
	Slider		●	●	●	-	●	
	Screen design	Document display	SD card	●	●	-	-	●
		Logging	(SD card or USB memory, battery)	●	●	●	●	●
		Recipe	(SD card or USB memory)	●	●	●	●	●
		Device data transfer		●	●	●	●	●
		Trigger action		●	●	●	●	●
Time action		(SD card or USB memory)	●	●	●	●	●	
Hard copy		File output	SD card or USB memory	●	●	●	●	● ^{*2}
		Serial printer output		●	●	●	●	● ^{*2}
		PictBridge printer output	Printer unit	●	●	-	-	● ^{*2}
Project/screen script			●	●	●	●	●	
Object script			●	●	●	-	●	
Barcode function			●	●	●	●	●	
RFID function			●	●	●	●	●	
Remote personal computer operation function (Ethernet)		License	●	●	-	-	-	
Remote personal computer operation function (serial)		RGB input unit or Video/RGB input unit	●	-	-	-	-	
GOT remote access function (VNC server function)	License	●	●	-	-	-		
Video display function	Video input unit or Video/RGB input unit	●	-	-	-	-		
RGB display function	RGB input unit or Video/RGB input unit	●	-	-	-	-		
Multimedia function	Multimedia unit, CF card	●	-	-	-	-		
Functions used with peripheral devices	External I/O function	External I/O unit	●	●	-	-	●	
	Operation panel function	External I/O unit	●	●	-	-	●	
	RGB output function	RGB output unit	●	-	-	-	● ^{*3}	
	Report function	Serial printer output		●	●	●	●	● ^{*3}
		PictBridge printer output	Printer unit	●	●	●	●	● ^{*3}
	Sound output function	Sound output unit	●	●	-	-	●	
	Server function, Client function		●	●	●	●	●	
	Mail send function		●	●	-	-	●	
	FTP server function	(SD card or USB memory)	●	●	●	-	●	
	File transfer (FTP client) function	SD card or USB memory	●	●	●	-	●	
	MES interface function	License, (SD card)	●	●	-	-	●	
	GOT functions	Base screen		●	●	●	●	●
		Overlap window		●	●	●	●	●
		Superimpose window		●	●	●	●	●
		Dialog window		●	●	●	●	●
Key window			●	●	●	●	●	
Language switching			●	●	●	●	●	
System information			●	●	●	●	●	
Operator authentication		(SD card or USB memory)	●	●	●	●	●	
Operation log		SD card or USB memory	●	●	●	-	●	
Startup logo			●	●	●	●	●	
Kana-kanji conversion			●	●	-	-	●	
FA transparent			●	●	-	-	●	
SoftGOT-GOT link			●	●	-	-	●	
Backup/Restore		SD card or USB memory	●	●	●	●	●	
Multi-channel function			4ch (Up to 3 units)	4ch (Up to 3 units)	2ch (No units can be mounted)	2ch (No units can be mounted)	-	
Station No. switching			●	●	●	●	●	
Screen gesture function			●	-	-	-	●	
Object gesture function			●	-	-	-	●	
Security key authentication function		NEW	●	●	●	●	●	
IP filter function		NEW	●	●	●	●	●	
Vertical display ^{*5}	NEW	(Rotate 90° to left)	(Rotate 90° to left)	(Rotate 90° to left)	(Rotate 90° to right)	-		
Debug functions	Device monitor		●	●	●	●	●	
	Sequence program monitor (Ladder)	SD card or USB memory	●	●	-	-	●	
	Sequence program monitor (SFC)	SD card or USB memory	●	●	-	-	●	
	Network monitor		●	●	-	-	●	
	Intelligent module monitor		●	●	-	-	●	
	Servo amplifier monitor		●	●	-	-	●	
	R motion monitor		●	●	-	-	●	
	Q motion monitor		●	●	-	-	●	
	Motion SFC monitor	SD card or USB memory	●	●	-	-	●	
	CNC monitor	NEW	● ^{*4}	● ^{*4}	-	-	●	
	CNC data I/O	NEW	● ^{*4}	● ^{*4}	-	-	●	
	CNC machining program edit	NEW	● ^{*4}	● ^{*4}	-	-	●	
	Log viewer	(SD card or USB memory)	●	●	-	-	●	
	MELSEC-FX list editor		●	●	●	●	●	
	FX ladder monitor		●	●	-	-	●	
MELSEC-L troubleshooting		●	●	-	-	●		

*1 Necessary units when using GT27, GT25, GT23, or GT21 are shown. Parenthesized devices will be required depending on conditions of use.

*2 Data is output to the printer that is recognized by the personal computer.

*3 CSV files are saved in the virtual drive of the personal computer so that it is recommended to output the files to printers.

*4 Only the GOTs with SVGA or higher resolution are supported.

*5 The following screens are displayed horizontally:

Utility screen, monitor and data management screens that are displayed from the utility screen (sequence program monitor, etc.), video camera images in the multimedia and video display functions

Remote personal computer operation function (Ethernet) cannot be used.

For the details of other GOT operations when placed vertically, please refer to the related manuals or the Help.

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GOT2000 connectable model list

■ Modules usable when connected with Mitsubishi PLCs/motion controllers

● Ethernet connection

CPU series	Ethernet module
MELSEC iQ-R series Motion controller (MELSEC iQ-R series)	RJ71EN71
MELSEC-Q series (Q mode) MELSEC-QS series Motion controller (MELSEC-Q series)	QJ71E71-100 QJ71E71-B5 QJ71E71-B2 QJ71E71
MELSEC-L series	LJ71E71-100*1
MELSEC-F series	FX3U-ENET-L*2 FX3U-ENET-ADP*2

*1 Use a CPU with the upper five digits of the serial No. later than 14112.

*2 Options for extension controller may be required depending on the connected CPU.

● Serial communication connection

CPU series	Serial communication module ^{*)}		
	Model name	CH1	CH2
MELSEC iQ-R series Motion controller (MELSEC iQ-R series)	RJ71C24	RS-232	RS-422/485
	RJ71C24-R2	RS-232	RS-232
	RJ71C24-R4	RS-422/485	RS-422/485
MELSEC-Q series (Q mode) Motion controller (MELSEC-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	Modular connector	RS-232
	QJ71CMON*3	Modular connector	RS-232
MELSEC-L series CC-Link IE Field Network head module	LJ71C24	RS-232	RS-422/485
	LJ71C24-R2	RS-232	RS-232

*1 Communication cannot be performed with RS-485.

*2 Either CH1 or CH2 can be used for the function version A.
Both CH1 and CH2 can be used together for the function version B or later.

*3 Only CH2 can be connected.

● CC-Link IE Controller Network connection

CPU series	CC-Link IE Controller Network module
MELSEC iQ-R series Motion controller (MELSEC iQ-R series)	RJ71GP21-SX
MELSEC-Q series (Q mode) MELSEC-QS series C Controller module Motion controller (MELSEC-Q series)	QJ71GP21-SX*1 QJ71GP21S-SX*1

*1 When the CC-Link IE Controller Network is in the extended mode, use a module with the upper five digits of the serial No. 12052 or later.

● CC-Link IE Field Network connection

CPU series	CC-Link IE Field Network module
MELSEC iQ-R series Motion controller (MELSEC iQ-R series)	RJ71GF11-T2 RJ71EN71
MELSEC-Q series (Q mode) C Controller module	QD77GF16 QJ71GF11-T2
MELSEC-QS series	QS0J71GF11-T2
MELSEC-L series	LJ71GF11-T2

● CC-Link (intelligent device station) connection

CPU series	CC-Link module
MELSEC iQ-R series Motion controller (MELSEC iQ-R series)	RJ61BT11
MELSEC-Q series (Q mode) C Controller module Motion controller (MELSEC-Q series)	QJ61BT11 QJ61BT11N
MELSEC-L series	LJ61BT11

● CC-Link (via G4) connection

CPU series	CC-Link module	Peripheral module
MELSEC-Q series (Q mode) C Controller module Motion controller (MELSEC-Q series)	QJ61BT11 QJ61BT11N	AJ65BT-G4-S3 AJ65BT-R2N
MELSEC-L series	LJ61BT11	

For the details of the connection configuration, please refer to the GOT2000 Series Connection Manual.

●MELSECNET/H connection

CPU series	MELSECNET/H module	
	Optical loop	Coaxial bus
MELSEC-Q series (Q mode) ^{*1} MELSEC-QS series Motion controller (MELSEC-Q series)	QJ71LP21 QJ71LP21-25 QJ71LP21S-25	QJ71BR11 ^{*1}
C Controller module	QJ71LP21-25 QJ71LP21S-25	

*1 Use function version B or later of the MELSECNET/H network module and CPU.

●MELSECNET/10 connection

CPU series	MELSECNET/H (NET/10 mode), MELSECNET/10 module	
	Optical loop	Coaxial bus
MELSEC-Q series (Q mode) ^{*1} MELSEC-QS series Motion controller (MELSEC-Q series)	QJ71LP21 QJ71LP21-25 QJ71LP21S-25	QJ71BR11 ^{*1}
C Controller module	QJ71LP21-25 QJ71LP21S-25	

*1 Use function version B or later of the MELSECNET/H network module and CPU.

Inverter

Series		GT27/GT25/GT23/GT21		
		RS-422	RS-232	Multi-drop connection
FREQROL series	FREQROL-A800 ^{*1}	○	×	×
	FREQROL-F800 ^{*1}	○	×	×
	FREQROL-A700	○	×	×
	FREQROL-F700P	○	×	×
	FREQROL-F700	○	×	×
	FREQROL-E700	○	×	×
	FREQROL-F700PJ	○	×	×
	FREQROL-D700	○	×	×
	FREQROL-V500/V500L	○	×	×
	FREQROL-A500/A500L	○	×	×
	FREQROL-F500/F500L	○	×	×
	FREQROL-E500	○	×	×
	FREQROL-S500/S500E	○	×	×
	FREQROL-F500J	○	×	×
MELIPM series	MD-CX522-□□K	○	×	×
	MD-CX522-□□K-A0	○	×	×

*1 GT21 does not support automatic negotiation.

Sensorless servo

Model name		GT27/GT25/GT23/GT21		
		RS-422	RS-232	Multi-drop connection
Drive module	FREQROL-E700EX	○	×	×

Servo amplifier

Series	Model name	GT27/GT25/GT23/GT21		
		RS-422	RS-232	Multi-drop connection
MELSERVO-J4 series	MR-J4-□A	○	○	×
	MR-J4-□A-RJ	○	○	×
MELSERVO-J3 series	MR-J3-□A	○	○	×
	MR-J3-□T	○	○	×
MELSERVO-J2-Super series	MR-J2S-□A	○	○	×
	MR-J2S-□CP	○	○	×
	MR-J2S-□CL	○	○	×
MELSERVO-J2M series	MR-J2M-P8A	○	○	×
	MR-J2M-□DU	○	○	×
MELSERVO-JE series	MR-JE-□A	○	×	×

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GOT2000 connectable model list

Robot controller

Series	Controller name	GT27/GT25/GT23 ^{*5}											
		Connection type											
		Ethernet connection	Direct CPU connection	Serial communication connection	CC-Link IE Controller Network connection	CC-Link IE Field Network connection	CC-Link connection (intelligent device station) ^{*1}	CC-Link connection (via G4)	Bus connection	MELSECNET/H connection	MELSECNET/10 connection ^{*2}	Multi-drop connection	
F series	CR750-Q (Q172DRCPU)	○ ^{*3}	○ ^{*4}	○	○	○	○	○	○	○	○	○	×
	CR751-Q (Q172DRCPU)	○ ^{*3}	○ ^{*4}	○	○	○	○	○	○	○	○	○	×
	CR750-D	○	×	×	×	×	×	×	×	×	×	×	×
	CR751-D	○	×	×	×	×	×	×	×	×	×	×	×
SQ series	CRnQ-700 (Q172DRCPU)	○ ^{*3}	○ ^{*4}	○	○	○	○	○	○	○	○	○	×
SD series	CRnD-700	○	×	×	×	×	×	×	×	×	×	×	×

*1 Connect the GOT as a CC-Link intelligent device station.

*2 Only supports the case where MELSECNET/H is used in the MELSECNET/10 mode. Connection to the remote I/O network is not allowed.

*3 The Display I/F of CRnQ-700, CR750/751-Q cannot be used. Ethernet connections can be established only via the Ethernet module (QJ1E71) or the built-in Ethernet port in the multiple CPU system (QnUDE).

*4 Access via the serial port (RS-232) of QCPU in the multiple CPU system since CRnQ-700 and CR750/751-Q have no serial ports.

*5 GT23 supports connection using Ethernet connection, direct CPU connection, serial communication connection, or CC-Link connection (via G4).

CNC

Series	Model name	GT27/GT25/GT23 ^{*5}											
		Connection type											
		Ethernet connection	Direct CPU connection	Serial communication connection	CC-Link IE Controller Network connection	CC-Link IE Field Network connection	CC-Link connection (intelligent device station) ^{*1}	CC-Link connection (via G4)	Bus connection	MELSECNET/H connection	MELSECNET/10 connection ^{*2}	Multi-drop connection	
CNC C70 ^{*3}	Q173NCCPU	○	○ ^{*4}	○	○	○	○	○	○	○	○	○	×

*1 Connect the GOT as a CC-Link intelligent device station.

*2 Includes the connection where MELSECNET/H is used in the MELSECNET/10 mode. Connection to the remote I/O network is not allowed.

*3 When using a CNC C70, the CNC monitor function, the CNC data I/O function, and the CNC machining program edit function can be used in bus connection and Ethernet connection (Display I/F connection only). The above functions are supported by the GOT models of which resolution is SVGA or higher.

*4 Access via the serial port (RS-232) of QCPU in the multiple CPU system since CNC C70 has no serial port.

*5 GT23 supports connection using Ethernet connection, direct CPU connection, serial communication connection, or CC-Link connection (via G4).

Power monitoring products

Series	Model name	GT27/GT25/GT23/GT21			
		RS-485	RS-422	RS-232	Multi-drop connection
Energy measuring unit EcoMonitorLight	EMU4-BD1-MB	○ (2-wire type ^{*1})	×	×	×
	EMU4-HD1-MB	○ (2-wire type ^{*1})	×	×	×
Electronic multi-measuring instrument	ME110SSR-MB	○ (2-wire type ^{*1})	×	×	×
	ME96NSR-MB	○ (2-wire type ^{*1})	×	×	×

*1 Only MODBUS[®]/RTU connection is supported. Use the MODBUS[®]/RTU communication driver.

■ Applicable GOT models for each connection type

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

Model	Connection type	Applicable model
GT27/GT25	RS-232	All models (Built-in interfaces of the GOT can be used.)
	RS-422/485	
	Ethernet	
	Other than above	
GT23	RS-232	All models (Built-in interfaces of the GOT can be used.)
	RS-422/485	
	Ethernet	
GT21	RS-232	GT2103-PMBDS
	RS-422/485	GT2103-PMBD GT2103-PMBDS
	Ethernet	GT2103-PMBD
	CC-Link	GT2103-PMBD GT2103-PMBDS

For the details of the connection configuration, please refer to the GOT2000 Series Connection Manual.

Third party PLCs/Motion controllers/Safety controllers

Manufacturer	Model name	GT27/GT25/GT23/GT21 ^{*31}							
		Ethernet connection	Direct CPU connection		Serial communication connection		EtherNet/IP connection		
			RS-422	RS-232	RS-422	RS-232			
OMRON Corporation	SYSMAC CJ1	CJ1H CJ1G	CJ1M	○	×	○	○ ^{*4}	×	
		CJ2H CJ2M		○	×	○	○ ^{*4}	×	
	SYSMAC CPM	CPM1	CPM1A	×	×	×	×	○	×
		CPM2A		×	×	○	×	○	×
		CPM2C		×	×	×	×	○	×
	SYSMAC CQM1H	CQM1H		×	×	○	×	×	
	SYSMAC CP1	CP1H	CP1L	×	×	×	○	×	×
		CP1E (N type)		×	×	○ ^{*6}	○ ^{*6*7}	○ ^{*6*7}	×
	SYSMAC CQM1	CQM1		×	×	○ ^{*8}	×	×	×
	SYSMAC CS1	CS1H	CS1D ^{*3}		○	×	○	○	×
		CS1G			○	×	○	○	×
	SYSMAC CVM1/CV ^{*9}	CVM-CPU11-V□ CVM1-CPU01-V□ CV500-CPU01-V□	CV1000-CPU01-V□ CV2000-CPU01-V□		×	○ ^{*4}	×	×	×
		SYSMAC C200HS	C200HS		×	×	×	○	○
	SYSMAC C200H	C200H		×	×	×	○	○	×
SYSMAC C1000H	C1000H		×	×	×	○ ^{*4}	○	×	
SYSMAC C2000H	C2000H		×	×	×	○ ^{*4}	○	×	
SYSMAC α	C200HX	C200HE		×	×	○	○	×	
	C200HG			×	×	○	○	×	
KEYENCE CORPORATION		KV-700	KV-3000	○ ^{*2}	×	○	○	○	×
		KV-1000		○ ^{*2}	×	○	○	○	×
		KV-5000	KV-5500	○ ^{*2}	×	○	○	○	×
KOYO ELECTRONICS INDUSTRIES CO., LTD. ^{*2}	DirectLOGIC 05 series	D0-05AA D0-05AD D0-05AR D0-05DA	D0-05DD D0-05DD-D D0-05DR D0-05DR-D	×	×	○	○	○	×
		D0-06DD1 D0-06DD2 D0-06DR D0-06DA D0-06AR	D0-06AA D0-06DD1-D D0-06DD2-D D0-06DR-D	×	○	○	○	○	×
	DirectLOGIC 205 series	D2-240		×	×	○	○	○	×
		D2-250-1	D2-260	×	○	○	○	○	×
	KOSTAC SU series	SU-5E SU-6B	SU-5M SU-6M	×	○	○	○	○	×
PZ series		PZ3	×	○	○	×	×	×	
Sharp Manufacturing Systems Corporation ^{*2}		JW-21CU JW-31CUH	JW-50CUH	×	×	×	○	×	×
		JW-22CU JW-32CUH JW-33CUH	JW-70CUH JW-100CUH JW-100CU	×	○ ^{*4}	○	×	×	
	Z-512J		×	○ ^{*4}	×	×	×	×	
	JTEKT Corporation ^{*2}	TOYOPUC series	PC2JC-CPU PC2J16P-CPU	PC2J16PR-CPU	×	×	○ ^{*10}	○	○ ^{*10}
PC2J-CPU PC2JS-CPU			PC2JR-CPU	×	×	×	○	○ ^{*10}	×
PC3JG-P-CPU			PC3JG-CPU	×	×	○ ^{*10}	○	○ ^{*10}	×
PC3JD-CPU			PC3JD-C-CPU	×	×	○ ^{*10}	○	○ ^{*10}	×
PC3J-CPU			PC3JL-CPU	×	○	○ ^{*10}	○	○ ^{*10}	×
T2 (PU224)				×	○	×	×	×	×
TOSHIBA CORPORATION ^{*2}	PROSEC T series	T2E	T2N	×	○ ^{*4}	×	×	×	×
		T3	T3H	×	○	×	×	×	×
		model 2000 (S2E) model 2000 (S2T) model 2000 (S2) model 3000 (S3)		×	○	×	×	×	×
TOSHIBA MACHINE CO., LTD.	TCmini series	TC3-01 TC3-02	TC6-00 TC8-00	×	×	○	×	×	×
HITACHI Industrial Equipment Systems Co., Ltd. ^{*2}	Large-sized H series	H-302 H-1002 H-300 H-2000	H-702 H-2002 H-700 H-4010	×	×	○	○ ^{*4}	×	
		H-200 to 252 series	H-250 H-252 H-252B	H-250 H-252C	×	×	○	×	×
	H series board type	HL-40DR HL-64DR H-20DR H-20DT H-28DR	H-28DT H-40DR H-40DT H-64DR H-64DT	×	×	○	×	×	×
		EH-150 series	EH-CPU104 EH-CPU208 EH-CPU308	EH-CPU316 EH-CPU516 EH-CPU548	×	×	○	×	×
Hitachi Ltd. ^{*2}	S10V	LQP510		×	×	×	○	○	×
		LQP520		×	×	×	○	○	×
	S10mini	LQP000 LQP010 LQP011	LQP120 LQP800	×	×	×	○	○	×
FUJI ELECTRIC CO., LTD. ^{*2}	MICREX-F	F55 F120S F140S	F70 F15□S	×	×	×	○	○	×
Panasonic Industrial Devices SUNX Co., Ltd.		FP0R 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		×	×	○	○	○	×
				×	×	○	○	○	×

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GOT2000 connectable model list

Third party PLCs/Motion controllers/Safety controllers

Manufacturer	Model name	GT27/GT25/GT23/GT21 ^{*1}						
		Ethernet connection	Direct CPU connection		Serial communication connection		EtherNet/IP connection	
			RS-422	RS-232	RS-422	RS-232		
YASKAWA Electric Corporation ^{*2}	GL120	GL130	×	×	○	○	×	×
	GL60S	GL70H	×	×	×	○	○	×
	GL60H		×	×	×	○	○	×
	CP-9200SH		○	×	×	×	○	×
	CP-9300MS		×	×	○	×	×	×
	MP920		○	×	○	○	○	×
	MP930		×	×	○	×	×	×
	MP940		×	○	○	×	×	×
	PROGIC-8		×	×	○	×	×	×
	CP-9200 (H)		×	×	○	×	×	×
	CP-312		○	×	×	×	○	×
	CP-317		○	×	×	×	○	×
	MP2200	MP2300S	○	×	×	○	○	×
	MP2300		○	×	×	○	○	×
Yokogawa Electric Corporation ^{*2}	FA500		×	×	×	○ ^{*4}	○	×
	FA-M3	F3SP05	F3SP08	○	×	○	○	×
		F3SP10		×	×	×	×	×
		F3SP20	F3SP30	×	×	×	○	○
		F3FP36		○	×	×	○	○
		F3SP21	F3SP38	○	×	○	○	○
		F3SP25	F3SP53	○	×	○	○	○
		F3SP28	F3SP58	○	×	○	○	○
	F3SP35	F3SP59	○	×	○	○	○	
	F3SP66	F3SP67	○	×	○	○	○	
	F3SP22-0S		×	×	○	×	×	
	F3SP71-4N		○	×	×	×	×	
	FA-M3V	F3SP71-4S		○	×	×	○	○
		F3SP76-7S		○	×	×	○	○
STARDOM	NFCP100	NFJT100	○ ^{*14}	×	○	×	×	
Allen-Bradley (Rockwell Automation, Inc.) ^{*2}	SLC500 series ^{*11}	SLC500-20	SLC5/01	×	×	○	×	×
		SLC500-30	SLC5/02	×	×	○	×	×
		SLC500-40	SLC5/03	×	×	○	×	×
			SLC5/04	×	×	○	×	×
	MicroLogix1000 series (digital CPU) ^{*11} *12*13	1761-L10BWA	1761-L32AAA	×	×	○	×	×
		1761-L10BWB	1761-L32AWA	×	×	○	×	×
		1761-L16AWA	1761-L32BWA	×	×	○	×	×
		1761-L16BWA	1761-L32BWB	×	×	○	×	×
		1761-L16BWB	1761-L32BBB	×	×	○	×	×
	MicroLogix1000 series (analog CPU) ^{*11}	1761-L20AWA-5A	1761-L20BWB-5A	×	×	○	×	×
		1761-L20BWA-5A		×	×	○	×	×
	MicroLogix1200 series ^{*11}	1762-L24BWA		×	×	○	×	×
	MicroLogix1400 series ^{*11}	1766-L32AWA		×	×	○	×	×
	MicroLogix1500 series ^{*11}	1764-LSP		×	×	○	×	×
ControlLogix series	1756-L	1756-L1M2	○ ^{*15}	×	○	×	×	
	1756-L1M1	1756-L1M3	○ ^{*15}	×	○	×	○	
	1756-L55M12	1756-L55M22	○ ^{*15}	×	○	×	○	
	1756-L55M13	1756-L55M23	○ ^{*15}	×	○	×	○	
	1756-L55M14	1756-L55M24	○ ^{*15}	×	○	×	○	
	1756-L55M16		○ ^{*15}	×	○	×	○	
CompactLogix series	1769-L31		×	×	○	×	×	
	1769-L32C		×	×	○	×	×	
	1769-L35CR		○ ^{*15}	×	○	×	○	
FlexLogix series	1794-L32E		○ ^{*15}	×	○	×	○	
	1794-L35E		○ ^{*15}	×	○	×	○	
GE Intelligent Platforms, Inc. ^{*2}	Series 90-30	IC693CPU311		×	×	×	○	○
		IC693CPU313		×	×	×	○	○
		IC693CPU323		×	×	×	○	○
	Series 90-70	IC693CPU350	IC693CPU366	×	○	×	○	○
		IC693CPU360	IC693CPU367	×	○	×	○	○
		IC693CPU363	IC693CPU374	×	○	×	○	○
		IC697CGR772	IC697CPX772	×	×	×	○	○
		IC697CGR935	IC697CPX782	×	×	×	○	○
	VersaMax Micro	IC697CPM790	IC697CPX928	×	×	×	○	○
		IC697CPU731	IC697CPX935	×	×	×	○	○
		IC697CPU780		×	×	×	○	○
		IC697CPU788		×	×	×	○	○
		IC697CPU789		×	×	×	○	○
		IC200UAA003		×	○	○	×	×
IC200UAR014		IC200UDR001	×	×	○	×	×	
IC200UDD104	IC200UDR002	×	×	○	×	×		
IC200UDD112	IC200UDR003	×	×	○	×	×		
LS Industrial Systems Co., Ltd. ^{*2}	K300S	K4P-15AS		×	×	×	○	○
		K200S	K3P-07□S	×	×	×	○	○
		K120S	K7M-D□□□U	×	×	○	○	○
		K80S	K7M-D□□□S (DC)	×	×	○	○	○
				×	×	○	○	○
				×	×	○	○	○
				×	×	○	○	○
				×	×	○	○	○

For the details of the connection configuration, please refer to the GOT2000 Series Connection Manual.

Manufacturer	Model name	GT27/GT25/GT23/GT21 ^{*8}							
		Ethernet connection	Direct CPU connection		Serial communication connection		EtherNet/IP connection		
			RS-422	RS-232	RS-422	RS-232			
Mitsubishi Electric India Pvt. Ltd.	Nexgenie 2000 PLC	P2210 P2211	P2213A P2214	×	○	○	×	×	×
	Nexgenie 1000 PLC	NG14RL NG14RN NG16ADL NG16ADN	NG16DL NG16DN	×	○	○	×	×	×
Schneider Electric SA ^{*2}	Twido	TWD LCAA 10DRF TWD LCAA 16DRF TWD LCAA 24DRF TWD LCAA 40DRF TWD LCAE 40DRF TWD LCDA 10DRF TWD LCDA 16DRF TWD LCDA 24DRF	TWD LMDA 20DRT TWD LMDA 20DTK TWD LMDA 20DUK TWD LMDA 40DTK TWD LMDA 40DUK	○ ^{*14}	×	×	×	×	×
	Modicon Premium	TSX P57 203M TSX P57 253M TSX P57 303M TSX P57 353M TSX P57 453M		○ ^{*14}	×	×	×	×	×
	Modicon Quantum	140 CPU 113 02 140 CPU 113 03 140 CPU 311 10 140 CPU 434 12A 140 CPU 434 12U	140 CPU 534 14A 140 CPU 534 14U 140 CPU 651 50 140 CPU 651 60 140 CPU 671 60	○ ^{*14}	×	×	×	×	×
SICK AG	Flexi Soft series	FX3-CPU00000 FX3-CPU130002	FX3-CPU320002	×	×	○	×	×	×
Siemens AG		SIMATIC S7-200 series		○ ^{*2&17}	×	○	×	×	×
		SIMATIC S7-300 series		○ ^{*2}	×	○	×	×	×
		SIMATIC S7-400 series		○ ^{*2}	×	○	×	×	×
		SIMATIC S7-1200 series		○ ^{*2&17}	×	×	×	×	×
SMC Corporation ^{*2}		LECA6	LECP6	×	○ ^{*18}	×	×	×	

- *1 Select an appropriate GT21 model depending on the connection type. For the details of applicable GOT models for each connection type, please refer to page 62.
- *2 GT21 cannot be connected.
- *3 Connectable only when a single communication unit is used in a single CPU system.
- *4 Either RS-422 or RS-232 can be selected.
- *5 Only CJ2M-CPU1□ can be connected.
- *6 Connection is not available with the E type CP1E.
- *7 For CP1E (N type) CPU modules with 20 or less I/O points, only the direct CPU connection is available.
- *8 The CQM1-CPU11 is unable to communicate with GOT since the CQM1-CPU11 has no RS-232 interface.
- *9 SYSMAC CVM1/CV can be used with a CPU version 1 or later.
- *10 An RS-232/RS-422 interface converter (TXU-2051) is required.
- *11 Connection to DH485 network is available via adapter (1770-KF3).
- *12 DH485 connection can be used with a CPU in the series C or later. (DH485 protocol is not supported by a CPU in the series B or earlier.)
- *13 One-to-one connection is supported by a CPU in the series D or later. (DF1 half duplex is not supported by a CPU in the series C or earlier.)
- *14 Only MODBUS[®]/TCP connection is supported. Use a MODBUS/TCP communication driver.
- *15 EtherNet/IP (PCCS protocol) is supported.
- *16 Use EtherNet/IP Tag.
- *17 Only OP communication can be used in Ethernet connection of the S7-200 series and the S7-1200 series.
- *18 Only MODBUS[®]/RTU connection is supported. Use MODBUS/RTU communication driver.

Modules usable when connected with third party serial communication connection, Ethernet connection, Ethernet/IP connection modules

Manufacturer		Ethernet	RS-422	RS-232	EtherNet/IP
OMRON Corporation	Host link unit Communication unit Communication board Ethernet module	CJ1W-EIP21 CJ1W-ETN21 CS1D-ETN21D CS1W-EIP21 CS1W-ETN21 CP1W-CIF41	CP1Q-CIF11 CJ1W-SCU31-V1 CJ1W-SCU41 (-V1) CP1W-CIF11 CP1W-CIF12 CQM1-SCB41 CS1W-SCB41 (-V1) C200H-LK202-V1 C200HW-COM03 C200HW-COM06 C500-LK201-V1	CJ1W-SCU21 (-V1) CJ1W-SCU41 (-V1) CPM1-CIF01 CPM2C-CIF01-V1 CP1W-CIF01 CQM1-CIF02 CQM1-SCB41 CS1W-SCB21 (-V1) CS1W-SCB41 (-V1) CS1W-SCU21 (-V1) C200HW-COM02 C200HW-COM05 C200HW-COM06 C200H-LK201-V1 C500-LK201-V1	-
KEYENCE CORPORATION	Multi-communication unit Ethernet module	KV-LE20V KV-LE21V	KV-L20 KV-L20R KV-L20V	KV-L20 KV-L20R KV-L20V	-
KOYO ELECTRONICS INDUSTRIES CO., LTD.	Data communications module Host link module	-	D0-DCM D2-DCM U-01DM	D0-DCM D2-DCM U-01DM	-
Sharp Manufacturing Systems Corporation	Link unit	-	JW-10CM JW-21CM ZW-10CM	-	-
JTEKT Corporation	Link unit	-	THU-2755 THU-2927 THU-5139	-	-
Hitachi Industrial Equipment Systems Co., Ltd.	Intelligent serial port module	-	COMM-H COMM-2H	COMM-H COMM-2H	-
Hitachi, Ltd.	Communication module	-	LQE165 LQE565	LQE060 LQE160 LQE560	-
FUJI ELECTRIC CO., LTD.	RS-232C interface card	-	-	NV1L-RS2	-
	RS-232C/485 interface capsule	-	FFK120A-C10	FFK120A-C10	-
	General-purpose interface module	-	FFU120B NC1L-RS4	FFU120B NC1L-RS2	-
Panasonic Industrial Devices SUNX Co., Ltd.	Computer communication unit Communication cassette	-	AFPX-COM3	AFP801 AFP802 AFPX-COM1 AFPX-COM2 AFPX-COM4 AFP2462 AFP3462 AFP5462	-

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GOT2000 connectable model list

■ Modules usable when connected with third party serial communication connection, Ethernet connection, Ethernet/IP connection modules

Manufacturer		Ethernet	RS-422	RS-232	EtherNet/IP
YASKAWA Electric Corporation	MEMOBUS module Communication module	CP-218IF 218IF 218IF-01 218IF-02*1 218TXB	JAMSC-IF612 JAMSC-120NOM27100 217IF 217IF-01	CP-217IF JAMSC-IF60 JAMSC-IF61 217IF 217IF-01 218IF-01 218IF-02*1	-
Yokogawa Electric Corporation	PC link module Ethernet interface module	F3LE01-5T F3LE11-0T F3LE12-0T	F3LC11-2N LC02-0N	F3LC01-1N F3LC11-1F F3LC11-1N F3LC12-1F LC01-0N LC02-0N	-
Allen-Bradley (Rockwell Automation, Inc.)	EtherNet/IP communication module	1756-ENBT 1756-ENET 1756-EN2TR	-	-	1756-ENBT 1756-ENET*2 1756-EN2TR 1788-ENBT/A
GE Intelligent Platforms, Inc.	Communication module	-	IC693CMM311 IC697CMM711	IC693CMM311 IC697CMM711	-
LS Industrial Systems Co., Ltd.	Cnet I/F unit	-	G7L-CUEC	G7L-CUEB	-
	Cnet I/F module	-	G4L-CUEA G6L-CUEC	G4L-CUEA G6L-CUEB	-
Schneider Electric SA	Ethernet module	TSX ETY 4102 TSX ETY 5102 140 NOE 771 00 140 NOE 771 10 140 NWM 100 00	-	-	-
Siemens AG	Ethernet module	CP 243-1 CP 243-1 IT CP 343-1 CP 343-1 Advanced CP 343-1 Advanced-IT CP 343-1 IT CP 343-1 Lean CP 443-1 CP 443-1 IT CP 443-1 Advanced-IT	-	-	-

*1 When connecting MP2200, MP2300, or MP2300S using Ethernet connection or RS-232 connection, use a CPU of the software version 2.60 or later.

*2 Use an EtherNet/IP communication module 1756-ENET of the version B or later.

Servo amplifier

Manufacturer	Model name	GT27/GT25	
		RS-485	RS-232
Panasonic Corporation	MINAS A4 series	○	○
	MINAS A4F series	○	○
	MINAS A4L series	○	○
	MINAS A5 series	○	○

Robot controller

Manufacturer	Model name	GT27/GT25					
		RS-422	RS-232				
IAI Corporation X-SEL controller	ROBO CYLINDER RCA series dedicated program controller	ASEL	ASEL	×	○		
	ROBO CYLINDER RCP2 series dedicated program controller	PSEL	PSEL	×	○		
	Single-axis robot/linear servo/ROBO CYLINDER RCS2 program controller	SSEL	SSEL	×	○		
	Single-axis, multi-axis robot controller	X-SEL	XSEL-J	XSEL-K	×	○	
			XSEL-KE	XSEL-KET			
			XSEL-KT	XSEL-P			
			XSEL-Q	XSEL-JX			
			XSEL-KTX	XSEL-KX			
	SCARA robot controller	X-SEL	XSEL-PX	XSEL-QX	×	○	
			XSEL-C	XSEL-CG			○
XSEL-CY			XSEL-PL				
XSEL-PO			XSEL-SE				
IAI Corporation ROBO CYLINDER	RCA2/RCA series positioner controller	ACON	ACON-C ACON-CG ACON-CY ACON-PL ACON-PO ACON-SE	○	○		
	ERC2 built-in positioner controller	ERC2	ERC2	○	○		
	RCP3/RCP2 series positioner controller	PCON	PCON-C	PCON-CA*1	○	○	
			PCON-CF	PCON-CFA*1			
			PCON-CG	PCON-CY			
			PCON-PL	PCON-PO			
			PCON-SE	SCON-C			
SCON-CA			SCON-C	○			○
TOSHIBA MACHINE CO., LTD.	SCARA robot controller	TS2000	TS2100	×	○		
		TS2100					

*1 Use PCON-CA or PCON-CFA of V0002 or later.

For the details of the connection configuration, please refer to the GOT2000 Series Connection Manual.

Temperature controllers/Other control equipment

Manufacturer	Model name		GT27/GT25/GT23				
			RS-485	RS-422	RS-232	Ethernet	
Azbil Corporation	AHC2001	AHC2001	○ (4-wire type* ¹¹)	×	○	×	
	AUR	AUR350C AUR450C	○ (2-wire type* ¹¹)	×	○* ²	×	
	CMC	CMC10B	○ (4-wire type)	×	○* ²	×	
	CMF	CMF015		○ (2-wire type* ¹¹)	×	○* ²	×
		CMF050		○ (2-wire type* ¹¹ /4-wire type)	×	○* ²	×
	CML	CML	○ (2-wire type* ¹¹ /4-wire type)	×	○* ²	×	
	CMS	CMS	○ (2-wire type* ¹¹)	×	○* ²	×	
	DMC	DMC10		○ (2-wire type* ¹¹)	×	○* ²	×
		DMC50		○ (2-wire type* ¹¹ /4-wire type)	×	×	×
	MPC	MPC	○ (2-wire type* ¹¹)	×	○* ²	×	
	MQV	MQV	○ (2-wire type* ¹¹)	×	○* ²	×	
	MVF	MVF	○ (2-wire type* ¹¹)	×	○* ²	×	
	NX	NX-D15 NX-D25 NX-D35		○ (2-wire type* ¹¹ * ⁹)	×	×	○* ¹⁰
			NX-DX1 NX-DY1 NX-DX2 NX-DY2	○ (2-wire type* ¹¹ * ⁹)	×	×	○* ¹⁰
			NX-S01 NX-S12 NX-S11 NX-S21	○ (2-wire type* ¹¹ * ⁹)	×	×	○* ¹⁰
		SDC	SDC15 SDC35 SDC25 SDC36	○ (2-wire type* ¹¹)	×	○* ²	×
			SDC45 SDC46	○ (2-wire type* ¹¹)	×	○* ²	×
			SDC20 SDC40A SDC21 SDC40B SDC30 SDC40G SDC31	○ (2-wire type* ¹¹ /4-wire type)	×	○* ²	×
	SDC30		○ (2-wire type* ¹¹ /4-wire type)	×	○* ²	×	
	PBZ	PBC201-VN2	○ (2-wire type* ¹¹ /4-wire type)	×	○* ²	×	
RX	RX	○ (2-wire type* ¹¹)	×	○* ²	×		
OMRON Corporation	INPANEL NEO	E5ZN	○ (2-wire type* ¹¹)	×	○* ²	×	
	THERMAC NEO	E5AN E5CN E5EN E5GN	○ (2-wire type* ¹¹)	×	○* ²	×	
Shinko Technos Co., Ltd.	ACS-13A series	ACS-13A □/□/□, C5* ⁸	○ (2-wire type* ¹¹)	×	○* ²	×	
	DCL-33A series	DCL-33A-□/□/□, C5* ⁸	○ (2-wire type* ¹¹)	×	○* ²	×	
	JC series	JCD-33A-□/□/□, C5* ⁸	○ (2-wire type* ¹¹)	×	○* ²	×	
		JCR-33A-□/□/□, C5* ⁸					
		JCS-33A-□/□/□, C5* ⁸					
	JCM-33A series	JCM-33A-□/□/□, C5* ⁸	○ (2-wire type* ¹¹)	×	○* ²	×	
	FCR-100 series	FCR-13A-□/□, M, C	×	×	○* ⁴	×	
		FCR-15A-□/□, M, C					
	FCD-100 series	FCD-13A-□/□, M, C	×	×	○* ⁴	×	
		FCD-15A-□/□, M, C					
	FCR-23A series	FCR-23A-□/□, M, C	×	×	○* ⁴	×	
	PC-900 series	PC935-□/□, M, C	×	×	○* ⁴	×	
		PC935-□/□, M, C5* ⁸	○ (2-wire type* ¹¹)				
		PC955-□/□, M, C	×				
PC955-□/□, M, C5* ⁸		○ (2-wire type* ¹¹)					
PCD-300 series	PCD-33A-□/□, M, C5* ⁸	○ (2-wire type* ¹¹)	×	○* ⁴	×		
FIR series	FIR-201-M, C	×	×	○* ⁴	×		
JIR-301-M series	JIR-301-□, C5* ⁸	○ (2-wire type* ¹¹)	×	○* ²	×		
CHINO CORPORATION	AH3000 series	AH3000	○ (2-wire type)	○	○	×	
	AL3000 series	AL3000	○ (2-wire type)	○	○	×	
	DB1000 series	DB1000	○ (2-wire type)	○	○	×	
	DB2000 series	DB2000	○ (2-wire type)	○	○	×	
	DZ1000 series	DZ1000* ⁷	○ (2-wire type)	○	○	×	
	DZ2000 series	DZ2000* ⁷	○ (2-wire type)	○	○	×	
	GT120 series	GT120	○ (2-wire type)	×	○* ²	×	
	JU series	JU	○ (2-wire type)	○	×	×	
	KE series	KE3000	○ (2-wire type)	○	×	×	
	KP series	KP1000 KP2000	○ (2-wire type)	○	○	×	
	LE5000 series	LE5000	○ (2-wire type)	○	×	×	
	LT230 series	LT230	○ (2-wire type)	×	○* ²	×	
	LT300 series	LT350 LT370	○ (2-wire type)	○	○	×	
	LT400 series	LT450 LT470	○ (2-wire type)	○	○	×	
	LT830 series	LT830	○ (2-wire type)	×	○* ²	×	
	SE3000 series	SE3000	○ (2-wire type)	○	○	×	
FUJI ELECTRIC CO., LTD.	Micro Controller X	PXH PXH9 PXG PXG4/5/9 PXR PXR3/4/5/9	○ (2-wire type* ¹¹)	×	○* ²	×	
Yokogawa Electric Corporation	GREEN series (UM)	UM330 UM350 UM331 UM351	○ (2-wire type* ¹¹)	×	○* ²	×	
		UP350 UP550 UP351	○ (2-wire type* ¹¹ /4-wire type)	×	○* ²	×	
	GREEN series (UP)	UP750	○ (2-wire type* ¹¹)	×	○* ²	×	
		US1000	○ (2-wire type* ¹¹)	×	○* ²	×	
	GREEN series (UT)	UT320 UT450 UT321 UT520 UT350 UT550 UT351 UT551 UT420	○ (2-wire type* ¹¹ /4-wire type)	×	○* ²	×	
		UT750	○ (2-wire type* ¹¹)	×	○* ²	×	

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GOT2000 connectable model list

Temperature controllers/Other control equipment

Manufacturer	Model name	GT27/GT25/GT23					
		RS-485	RS-422	RS-232	Ethernet		
Yokogawa Electric Corporation	UT100 series (UP)	UP150	○ (2-wire type ^{*1})	×	○ ^{*2}	×	
	UT100 series (UT)	UT130 UT150	UT152 UT155	○ (2-wire type ^{*1})	×	○ ^{*2}	×
	UT2000 series	UT2400	UT2800	○ (4-wire type)	×	○ ^{*2}	×
	UTAdvanced series (UM)	UM33A		○ (2-wire type ^{*1} /4-wire type)	×	○ ^{*2}	○ ^{*10}
	UTAdvanced series (UP)	UP35A	UP55A	○ (2-wire type ^{*1} /4-wire type)	×	○ ^{*2}	○ ^{*10}
	UTAdvanced series (UT)	UT32A UT35A	UT55A UT75A	○ (2-wire type ^{*1} /4-wire type)	×	○ ^{*2}	○ ^{*10}
RKC INSTRUMENT INC.	SR Mini HG	H-PCP-J		○ (2-wire type ^{*1})	○	○	×
		H-PCP-A	H-PCP-B ^{*7}	×	○	○	×
	SRZ	Z-CT		○ (2-wire type ^{*1} / ^{*6})	○ ^{*5}	○ ^{*2}	○ ^{*10}
		Z-DIO					
	CB ^{*7}	CB100	CB700	○ (2-wire type ^{*1})	×	○ ^{*2}	×
		CB400 CB500	CB900				
	FB	FB100		○ (2-wire type/4-wire type)	×	○ ^{*2}	○ ^{*10}
		FB400	FB900	○ (2-wire type/4-wire type)	○	○	○ ^{*10}
	RB	RB100	RB700	○ (2-wire type)	×	○ ^{*2}	×
		RB400 RB500	RB900				
	PF	PF900	PF901	○ (2-wire type/4-wire type)	○	○	×
	HA	HA400	HA900	○ (2-wire type/4-wire type)	○	○	×
		HA401	HA901				
	RMC	RMC500		○ (2-wire type)	×	○ ^{*2}	×
	MA	MA900	MA901	○ (2-wire type/4-wire type)	○	○	×
	AG	AG500		○ (2-wire type/4-wire type)	○	×	×
THV	THV-A1		○ (2-wire type/4-wire type)	○	×	×	
SA	SA100	SA200	○ (2-wire type)	×	○ ^{*2}	×	
SRX	X-TIO		○ (2-wire type)	×	○ ^{*2}	×	
SB1	SB1		○ (2-wire type)	×	○ ^{*2}	×	
B400	B400		○ (2-wire type)	○	×	×	

*1 GT27/GT25: Use GT15-RS4-TE or FA-LTBGT2R4CBL□.

The RS-422/485 interface and GT15-RS4-9S cannot be used.

GT23: Use FA-LTBGT2R4CBL□. The RS-422/485 interface cannot be used.

*2 If the temperature controller/indicating controller has an RS-485 interface, use an RS-232/RS-485 converter for the manufacturer.

*3 If the temperature controller/indicating controller has an RS-422 interface, use an RS-232/RS-422 converter for the manufacturer.

*4 Only the indicating controller equipped with RS-232 communication function can be connected.

*5 Use a communication extension module (Z-COM).

*6 Use a communication extension module (Z-COM) depending on the system configuration of the temperature controller.

*7 Select a model that supports the MODBUS[®] communication function.

*8 Connectable with the products manufactured in October 2007 or later (Indicating controllers with the serial numbers 07Axxxxxx, 07Kxxxxxx, and 07Xxxxxxx or later).

*9 Only MODBUS[®]/RTU connection is supported. Use MODBUS/RTU communication driver.

*10 Only MODBUS[®]/TCP connection is supported. Use a MODBUS/TCP communication driver.

*11 Use a serial communication unit SCU.

MODBUS[®] device

Communication with MODBUS[®] compatible devices is possible by using the MODBUS/RTU communication driver or the MODBUS/TCP communication driver. (GT21 supports MODBUS[®]/RTU connection only.)

For the MODBUS[®] devices, which have been checked for operation, please refer to the Technical Bulletin "List of Valid Devices Applicable for GOT2000 Series MODBUS[®] Connection" No. GOT-A-0070.

Computer

By connecting a PC, microcomputer board, PLC, etc. to a GOT, the data can be written to or read from virtual devices of the GOT.

■ Applicable GOT models for each connection type

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

Model	Connection type	Applicable model
GT27/GT25	RS-232	All models (Built-in interfaces of the GOT can be used.)
	RS-422/485	
	Ethernet	
	Other than above	
GT23	RS-232	All models (Built-in interfaces of the GOT can be used.)
	RS-422/485	
	Ethernet	
GT21	RS-232	GT2103-PMBDS
	RS-422/485	GT2103-PMBD GT2103-PMBDS
	Ethernet	GT2103-PMBD
	CC-Link	GT2103-PMBD GT2103-PMBDS

For the details of the connection configuration, please refer to the GOT2000 Series Connection Manual.

GT SoftGOT2000 Version1 connectable model list

Mitsubishi PLCs/C Controller modules/Safety controllers/Motion controllers

Series	Model name	Connection type										
		Ethernet connection	Direct CPU connection		Serial communication connection	CC-Link IE Controller Network connection	CC-Link IE Field Network connection	MELSECNET/H connection	MELSECNET/I/O connection ^⑧			
			RS-232	USB								
PLC	MELSEC iQ-R series	R04CPU										
		R08CPU										
		R16CPU	○	×	○	○	×	×	×	×		
		R32CPU										
		R120CPU										
	MELSEC-Q series (Q mode)	High-speed type universal model QCPU	Q03UDVCP									
			Q04UDVCP									
			Q06UDVCP	○*23	○*19	○	○	○*2	○*4	○*23	○*23	
			Q13UDVCP									
			Q26UDVCP									
			Universal model QCPU	Q00UCPU					○*2			
		Q01UCPU						○*3				
		Q02UCPU						○*3				
		Q03UDCPU						○*3	○*4	○*23	○*23	
		Q04UDHCPU		○*23	○	○	○	○*3				
		Q06UDHCPU						○*2				
		Q10UDHCPU										
		Q13UDHCPU										
		Q20UDHCPU										
		Q26UDHCPU										
		Built-in Ethernet type		Q03UDECPU					○*3			
				Q04UDEHCPU								
				Q06UDEHCPU								
				Q10UDEHCPU								
			Q13UDEHCPU	○*23	○*18	○	○	○*2	○*4	○*23	○*23	
			Q20UDEHCPU									
			Q26UDEHCPU									
			Q50UDEHCPU									
			Q100UDEHCPU									
			Basic model QCPU	Q00JCPU								
		Q00CPU*5		○*23	○	×	○	○*5	×	○*23	○*23	
		Q01CPU*5										
		High performance model QCPU		Q02CPU*5			×					
				Q02HCPU*5								
			Q06HCPU*5	○*23	○	○	○	○*7	×	○*23	○*23	
			Q12HCPU*5									
			Q25HCPU*5									
		Process CPU	Q02PHCPU					○*8				
			Q06PHCPU	○*23	○	○	○	○*9	×	○*23	○*23	
			Q12PHCPU									
		Redundant CPU (main base)	Q25PHCPU									
			Q12PRHCPU	○	○	○	×	○*9	×	○*10	○*10	
		Redundant CPU (extension base)	Q25PRHCPU									
			Q12PRHCPU	○	×	×	○	×	×	×	×	
		MELSEC-QS series	Q25PRHCPU									
			QS001CPU	○	×	○*11	×	○*12	○*13	○	○	
		MELSEC-L series	L02SCPU									
			L02SCPU-P	○*14	○*15	○	○	×	○*16	×	×	
			L02CPU									
			L02CPU-P									
	L06CPU											
	L06CPU-P		○*14	○*17	○	○	×	○*16	×	×		
	L26CPU											
	L26CPU-P											
	L26CPU-BT											
	L26CPU-PBT											
	MELSEC-F series	FX0										
		FX0S	×	○	×	×	×	×	×	×		
		FX0N										
		FX1										
		FX1S	×	○	×	×	×	×	×	×		
		FX1N										
		FX1NC										
		FX2										
		FX2C	×	○	×	×	×	×	×	×		
		FX2N										
		FX2NC	×	○	×	×	×	×	×	×		
		FX3G										
		FX3GC	○	○	○	×	×	×	×	×		
		FX3U										
		FX3UC	○	○	×	×	×	×	×	×		
		FX3S										
		FX3GE										
		C Controller module	Q24DHCCPU-V									
	Q24DHCCPU-VG		○	○*18	○	○*19	○*3	○*20	○	○		
	Q24DHCCPU-LS											
	Q12DCCPU-V*20											

Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

GT SoftGOT2000 Version1 connectable model list

Mitsubishi PLCs/C Controller modules/Safety controllers/Motion controllers

Series	Model name	Connection type								
		Ethernet connection	Direct CPU connection		Serial communication connection	CC-Link IE Controller Network connection	CC-Link IE Field Network connection	MELSECNET/H connection	MELSECNET/10 connection ^{*)}	
			RS-232	USB						
Safety controller	MELSEC-WS series	WS0-CPU0	×	×	×	×	×	×	×	×
		WS0-CPU1	×	×	×	×	×	×	×	×
		WS0-CPU3	×	×	×	×	×	×	×	×
Motion controller	MELSEC iQ-R series	R16MTCPU	×	×	×	×	×	×	×	×
		R32MTCPU	×	×	×	×	×	×	×	×
	MELSEC-Q series	Q172CPU	×	×	×	×	×	×	×	×
		Q173CPU	×	×	×	×	×	×	×	×
		Q172CPUN	×	×	×	×	×	×	×	×
		Q173CPUN	×	×	×	×	×	×	×	×
		Q172HCPU	×	×	×	×	×	×	×	×
		Q173HCPU	×	×	×	×	×	×	×	×
		Q172DCPU	×	×	×	×	×	×	×	×
		Q173DCPU	×	×	×	×	×	×	×	×
		Q172DCPU-S1	×	×	×	×	×	×	×	×
		Q173DCPU-S1	×	×	×	×	×	×	×	×
		Q172DSCPU	○ ^{*)23}	○ ^{*)18}	○	○	○	×	○ ^{*)23}	○ ^{*)23}
		Q173DSCPU	○ ^{*)23}	○	○	○	○	○ ^{*)4}	○ ^{*)23}	○ ^{*)23}
		Q170MCPU ^{*)21*)22}	○ ^{*)23}	○	○	○	○	○	○ ^{*)23}	○ ^{*)23}
		Q170MSCPU ^{*)22}	○ ^{*)23}	○	○	○	○	○	○ ^{*)23}	○ ^{*)23}
		Q170MSCPU-S1 ^{*)22}	○ ^{*)23}	○	○	○	○	○	○ ^{*)23}	○ ^{*)23}
MR-MQ100	×	×	×	×	×	×	×	×		
MELSECNET/H remote I/O station	QJ72LP25-25	×	○	×	×	×	×	×	×	
	QJ72LP25G	×	○	×	×	×	×	×	×	
	QJ72BR15	×	○	×	×	×	×	×	×	
CC-Link IE Field Network head module	LJ72GF15-T2	×	×	○	○	×	○	×	×	
CC-Link IE Field Network Ethernet adapter module	NZ2GF-ETB ^{*)24}	○	×	×	×	×	×	×	×	

- *1 Includes the connection where MELSECNET/H is used in the MELSECNET/10 mode. Connection to the remote I/O network is not allowed.
- *2 Use a CC-Link IE Controller Network module with the upper five digits of the serial No. later than 09042.
- *3 Use a CPU and a CC-Link IE Controller Network module with the upper five digits of the serial No. later than 09042.
- *4 Use a CPU with the upper five digits of the serial No. later than 12012.
- *5 Use a CPU of function version B or later or a CC-Link IE Controller Network module of function version D or later.
- *6 For the multiple CPU system configuration, use a CPU of function version B or later.
- *7 Use a CPU with the upper five digits of the serial No. later than 09012 or a CC-Link IE Controller Network module with the upper five digits of the serial No. later than 09011.
When the total number of stations in a network is 65 or more, use a CC-Link IE Controller Network module with the upper five digits of the serial No. 09042 or later.
- *8 Use a CC-Link IE Controller Network module of function version D or later.
- *9 Use a CPU with the upper five digits of the serial No. later than 10042 or a CC-Link IE Controller Network module of function version D or later.
- *10 Use a MELSECNET/H interface board driver (SW0DNC-MNETH-B) with the version K or later.
- *11 Only the host station and the host station settings can be accessed. (Access to other stations or other PLC CPUs are not allowed.)
- *12 Use a CPU with the upper five digits of the serial No. later than 10032 or a CC-Link IE Controller Network module of function version D or later.

- *13 Use a CPU with the upper five digits of the serial No. later than 13042.
- *14 When using a LJ71E71-100, use a CPU with the upper five digits of the serial No. later than 14112.
- *15 Use a LJ71E71-100 since L02SCPU and L02SCPU-P have no built-in Ethernet port.
- *16 Use a CPU with the upper five digits of the serial No. later than 13012.
- *17 The adapter L6ADP-R2 is required.
- *18 Access via the serial port (RS-232) of QCPU in the multiple CPU system since QnUDEHCPU, Q12DCCPU, Q24DHCCPU-V/VG/LS, Q172DS/173DSCPU, Q173NCCPU, and Q172DRCPU have no serial port.
- *19 Use the serial port of a serial communication module controlled by another CPU on the multiple CPU system.
- *20 Use a CPU with the upper five digits of the serial No. later than 12042.
- *21 When using SV43, use the motion controller CPU on which any of the following main OS software version is installed.
SW7DC-SV43Q: 3.00F or later
- *22 Only the PLC CPU area (CPU No.1) can be connected. The PERIPHERAL I/F cannot be used.
- *23 In the Ethernet, MELSECNET/H, or MELSECNET/10 connection, to monitor a QCPU in the multiple CPU system, always use a network module of function version B or later.
- *24 Devices of other stations can be monitored via NZ2GF-ETB. (Devices of the host station cannot be monitored.)

Modules usable when connected with Mitsubishi PLCs

Ethernet connection

PLC Ethernet module

CPU series	Ethernet module
MELSEC iQ-R series	RJ71EN71
MELSEC-Q series (Q mode) MELSEC-QS series Motion controller (MELSEC-Q series) ^{*)1}	QJ71E71-100 QJ71E71-B5 QJ71E71-B2 QJ71E71
MELSEC-L series	LJ71E71-100 ^{*)2}
MELSEC-F series	FX3U-ENET-L ^{*)3} FX3U-ENET-ADP ^{*)3}

- *1 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPU/Q170MSCPU is available.
- *2 When using a LJ71E71-100, use a CPU with the upper five digits of the serial No. later than 14112.
- *3 Options for extension controller may be required depending on the connected CPU.

Serial communication connection^{*)1}

PLC serial communication module

CPU series	Serial communication module
MELSEC iQ-R series	RJ71C24 RJ71C24-R2
MELSEC-Q series (Q mode) Motion controller (MELSEC-Q series) ^{*)2}	QJ71C24 QJ71C24-R2 QJ71C24N QJ71C24N-R2
MELSEC-L series CC-Link IE Field Network head module	LJ71C24 LJ71C24-R2

- *1 Only RS-232 communication can be used.
- *2 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPU/Q170MSCPU is available.

For the details of the connection configuration, please refer to the GOT2000 Series Connection Manual.

● **CC-Link IE Controller Network connection**

● **Network module (PLC side)**

CPU series	CC-Link IE Controller Network module
MELSEC-Q series (Q mode) MELSEC-QS series C Controller module Motion controller (MELSEC-Q series)*1	QJ71GP21-SX QJ71GP21S-SX

*1 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUCPU/Q170MSCPU is available.

● **Network interface board (PC side)**

PLC type	Network interface board
CC-Link IE Controller Network	Q80BD-J71GP21-SX Q80BD-J71GP21S-SX Q81BD-J71GP21-SX (optical loop) Q81BD-J71GP21S-SX (optical loop, with external power supply function)

● **CC-Link IE Field Network connection**

● **Network module (PLC side)**

CPU series	CC-Link IE Field Network module
MELSEC-Q series (Q mode) Motion controller (MELSEC-Q series)*1	QJ71GF11-T2
MELSEC-QS series	QS0J71GF11-T2
MELSEC-L series	LJ71GF11-T2

*1 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUCPU/Q170MSCPU is available.

● **Network interface board (PC side)**

PLC type	Network interface board
CC-Link IE Field Network	Q81BD-J71GF11-T2

● **MELSECNET/H, MELSECNET/10 connection**

● **Network module (PLC side)**

CPU series	MELSECNET/H, MELSECNET/10 module	
	Optical loop	Coaxial bus
MELSEC-Q series (Q mode)*1 MELSEC-QS series Motion controller (MELSEC-Q series)*2	QJ71LP21 QJ71LP21-25 QJ71LP21S-25	QJ71BR11*1
C Controller module	QJ71LP21-25 QJ71LP21S-25	

*1 Use function version B or later of the MELSECNET/H network module and CPU.

*2 For the connection with motion controller CPUs (Q series), only the PLC CPU area (CPU No.1) of the Q170MCPUCPU/Q170MSCPU is available.

● **Network interface board (PC side)**

PLC type	Network interface board
MELSECNET/H	Q80BD-J71LP21-25 (optical loop) Q80BD-J71LP21S-25 (optical loop, with external power supply function) Q80BD-J71LP21G (optical loop) Q80BD-J71BR11 (coaxial loop) Q81BD-J71LP21-25 (optical loop)

Mitsubishi robot controller

Controller name	Ethernet connection	Connection type							
		Direct CPU connection		Serial communication connection	CC-Link IE Controller Network connection	CC-Link IE Field Network connection	MELSECNET/H connection	MELSECNET/10 connection ^(*)	
RS-232	USB								
F series	CR750-Q(Q172DRCPU)	○*2	○*3	○	○	○*4	○	○	○
	CR751-Q(Q172DRCPU)	○	×	×	×	×	×	×	×
	CR750-D CR751-D	○	×	×	×	×	×	×	×
SQ series	CRnQ-700 (Q172DRCPU)	○*2	○*3	○	○	○*4	○	○	○
SD series	CRnD-700	○	×	×	×	×	×	×	×

*1 Only supports the case where MELSECNET/H is used in the MELSECNET/10 mode. Connection to the remote I/O network is not allowed.

*2 The Display I/F of CRnQ-700, CR750/751-Q cannot be used. Ethernet connections can be established only via the Ethernet module (QJ71E71) or the built-in Ethernet port in the multiple CPU system (QnUDE).

*3 Access via the serial port (RS-232) of QCPU in the multiple CPU system since CRnQ-700 and CR750/751-Q have no serial port.

*4 Use a CC-Link IE Controller Network module with the upper five digits of the serial No. later than 09042.

GT SoftGOT2000 Version1 connectable model list

Mitsubishi CNC

Series	Model	Ethernet connection	Direct CPU connection		Serial communication connection	CC-Link IE Controller Network connection	CC-Link IE Field Network connection	MELSECNET/H connection	MELSECNET/10 connection ^{*3}
			RS-232	USB					
CNC C70	Q173NCCPU	○	○ ^{*2}	○	○	○ ^{*3}	○	○	○

*1 Only supports the case where MELSECNET/H is used in the MELSECNET/10 mode. Connection to the remote I/O network is not allowed.

*2 Access via the serial port (RS-232) of QCPU in the multiple CPU system since CNC C70 has no serial port.

*3 Use a CC-Link IE Controller Network module with the upper five digits of the serial No. later than 09042.

Third party PLCs/Motion controllers

Manufacturer	Model name	Connection type					
		Ethernet connection	Direct CPU connection (RS-232)	Serial communication connection (RS-232)			
OMRON Corporation	SYSMAC CJ1	CJ1H CJ1G	CJ1M	○	○	×	
	SYSMAC CJ2	CJ2H	CJ2M	○	○ ^{*1}	×	
	SYSMAC CPM	CPM2A		×	○	×	
	SYSMAC CQM1H	CQM1H		×	○	×	
	SYSMAC CP1	CP1E (N type)		×	○	×	
	SYSMAC CQM1	CQM1		×	○ ^{*2}	×	
	SYSMAC CS1	CS1H CS1G	CS1D ^{*3}		○	○	×
	SYSMAC CVM1/CV ^{*4}	CVM1-CPU01-V <input type="checkbox"/> CVM1-CPU01-V <input type="checkbox"/> CV500-CPU01-V <input type="checkbox"/>	CV1000-CPU01-V <input type="checkbox"/> CV2000-CPU01-V <input type="checkbox"/>		×	○	×
	SYSMAC α	C200HX C200HG	C200HE		×	○	×
KEYENCE CORPORATION		KV-700 KV-1000	KV-3000	○	×	×	
		KV-5000	KV-5500	○	×	×	
		GL120 GL60S GL60H	GL130 GL70H	×	○	×	
YASKAWA Electric Corporation		CP-9200SH		○	×	○	
		CP-9300MS		×	○	×	
		MP920		○	○	○	
		MP930		×	○	×	
		MP940		×	○	×	
		PROGIC-8		×	○	×	
		CP-9200(H)		×	○	×	
		CP-312		○	×	○	
		CP-317		○	×	○	
		MP2200 MP2300	MP2300S		○	×	○
	Yokogawa Electric Corporation	FA-M3	F3SP05 F3SP08 F3FP36 F3SP21 F3SP25 F3SP28 F3SP35	F3SP38 F3SP53 F3SP58 F3SP59 F3SP66 F3SP67	○	×	×
		FA-M3V	F3SP71-4N F3SP71-4S F3SP76-7S		○	×	×
	Siemens AG		SIMATIC S7-200 series ^{*5} SIMATIC S7-300 series SIMATIC S7-400 series ^{*5} SIMATIC S7-1200 series ^{*5}		○	×	×

*1 Only C.J2M-CPU1 can be connected.

*2 Connection to the CQM1-CPU11 is not allowed since the CQM1-CPU11 has no RS-232 interface.

*3 Connection is supported only when a single communication unit is used in a single CPU system configuration.

*4 SYSMAC CVM1/CV can be used with a CPU version 1 or later.

*5 Only OP communication can be used in Ethernet connection of the S7-200 series and the S7-1200 series.

Modules usable when connected with third party serial communication connection or Ethernet connection modules

Manufacturer	Ethernet	RS-232		
			Manufacturer	Model name
OMRON Corporation	Ethernet module	CS1W-ETN21 CS1D-ETN21D	CJ1W-ETN21	-
KEYENCE CORPORATION	Ethernet module	KV-LE20V	KV-LE21V	-
YASKAWA Electric Corporation	MEMOBUS module Communication module	218IF 218IF-01 218IF-02 ^{*1} 218TXB	JAMSC-IF60 JAMSC-IF61 CP-217IF 217IF	217IF-01 218IF-01 218IF-02 ^{*1}
Yokogawa Electric Corporation	Ethernet interface module	F3LE01-5T F3LE11-0T F3LE12-0T		-
Siemens AG	Ethernet module	CP343-1 IT CP343-1 CP343-1 Lean	CP343-1 Advanced CP443-1 IT CP443-1	-

*1 To connect MP2200, MP2300, or MP2300S using Ethernet connection or RS-232 connection, use a CPU of software version 2.60 or later.

MODBUS® device

Communication with MODBUS® compatible devices is possible.

For the MODBUS® devices, which have been checked for operation, please refer to the Technical Bulletin "List of Valid Devices Applicable for GOT2000 Series MODBUS® Connection" No. GOT-A-0070.

For the details of the connection configuration, please refer to the GOT2000 Series Connection Manual.

Compatibility with Conventional Products

Compatibility with GOT1000 series

- The following shows the overview of replacing from the GOT1000 series. For the details, please refer to the following Technical Bulletins.
- Technical Bulletin "Precautions when Replacing GOT1000 Series with GOT2000 Series" No.GOT-A-0061 (GT16, GT15)

Panel cutting dimensions

The panel cutting dimensions are the same if the GOT1000 series and the GOT2000 series have the same screen size. Changing mounting holes is not required.

GOT1000 series		GOT2000 series
15"	GT1695, GT1595*	Same dimensions as GT2715.
12.1"	GT1685, GT1585	Same dimensions as GT2712, GT2512.
10.4"	GT167□, GT157□	Same dimensions as GT2710, GT2510.
8.4"	GT1665, GT156□	Same dimensions as GT2708, GT2508.
3.7"	GT1020	Same dimensions as GT2103. (Although the screen size differs, panel cutting dimensions are the same.)

* Discontinued product.

Communication units, option units

Communication units and option units for the GT16, GT15, or GT10 can be used with the GOT2000 series as-is except for the following devices.

GOT1000 series		GOT2000 series	Remarks	
Communication unit	RS-422 conversion unit	GT15-RS2T4-9P GT15-RS2T4-25P	Use the built-in RS-422/485 interface or GT15-RS4-9S (serial communication unit)	
	MELSECNET/10 communication unit	GT15-75J71LP23-Z*	GT15-J71LP23-25 (MELSECNET/H connection unit)	
		GT15-75J71BR13-Z*	GT15-J71BR13 (MELSECNET/H connection unit)	
	CC-Link communication unit (CC-Link (ID) Ver.1)	GT15-75J61BT13-Z*	GT15-J61BT13 (CC-Link communication unit)	
	Connection conversion adapter	GT10-9PT5S	-	The adapter is not required on GT2103 because Europe terminal blocks are used.
Ethernet communication unit	GT15-J71E71-100	Use the built-in Ethernet interface		
Option unit	Multimedia unit	GT16M-MMR	GT27-MMR-Z (multimedia unit)	A CF card is used with the unit.
	Video input unit	GT16M-V4	GT27-V4-Z (video input unit)	
		GT15V-75V4		
	RGB input unit	GT16M-R2	GT27-R2-Z (RGB input unit)	
		GT15V-75R1		
	Video/RGB input unit	GT16M-V4R1	GT27-V4R1-Z (video/RGB input unit)	
		GT15V-75V4R1		
	RGB output unit	GT16M-ROUT	GT27-ROUT-Z (RGB output unit)	
GT15V-75ROUT				
CF card unit	GT15-CFCD	-	A CF card cannot be used with the GOT2000 series. Use an SD card with the built-in SD card slot.	
CF card extension unit	GT15-CFEX-C08SET	-		

* Discontinued product.

Cables

<GT16, GT15>

- For the details of using the bus connection cables, RS-232 cables, RS-422 cables, or other cables for GT16 or GT15 with GT27 or GT25, please refer to the Technical Bulletin No. GOT-A-0061.

<GT10>

- The cables being used with GT1020 can be used as-is with GT2103 (serial type).

Project data

The project data of the GOT1000 series can be used as-is by converting the GOT Type using GT Designer3 Version 1.100E or later*.

* The supported version differs depending on the GOT2000 models.

Compatibility with GOT900 series

For the details, please refer to the following Technical Bulletins.

- Technical Bulletin "Precautions when Replacing GOT-A900 Series with GOT2000 Series" No.GOT-A-0062

Compatibility with GOT800, A77GOT, or A64GOT series

For the details, please refer to the following Technical Bulletins.

- Technical Bulletin "Precautions when Replacing A800, A77GOT, A64GOT Series with GOT2000 Series" No.GOT-A-0063

For the Technical Bulletins, please contact your local sales office.

Product list

GOT model name

GT27 15 - X T B A □

Code	Screen size	Code	Resolution	Code	Display section	Code	Panel color	Code	Power supply type	Code	Communication interface
15	15"	X	XGA	T	TFT color	B	Black	A	100 to 240VAC	None*1	Ethernet, RS-422/485
12	12.1"	S	SVGA	M	TFT monochrome	W	White	D	24VDC	S*1	RS-232, RS-422/485
10	10.4"	V	VGA								
08	8.4"	P	320x128 dots								
05	5.7"										
03	3.8"										

*1 GT21 only

GT27	Advanced model with multi-touch gesture functions
GT25	High performance, cost efficient, mid-range model
GT23	Unchallenged cost performance
GT21	Compact models with basic functions

GOTs

Category	Model name	Screen size	Display section	Display color	Panel color	Power supply	Remarks			
GT27	GT2715-XTBA	15" XGA	TFT color	65536 colors	Black	100 to 240VAC	Multimedia & Video/RGB compliant Multi-touch compliant			
	GT2715-XTBD					24VDC				
	GT2712	GT2712-STBA			12.1" SVGA	Black		100 to 240VAC	-	
		GT2712-STBD						24VDC		
		GT2712-STWA				White		100 to 240VAC		
		GT2712-STWD						24VDC		
	GT2710	GT2710-STBA			10.4" SVGA	Black		100 to 240VAC		-
		GT2710-STBD						24VDC		
		GT2710-VTBA			10.4" VGA	White		100 to 240VAC		
		GT2710-VTBD						24VDC		
		GT2710-VTWA				100 to 240VAC				
	GT2710-VTWD	24VDC								
GT2708	GT2708-STBA	8.4" SVGA	TFT color	65536 colors	Black	100 to 240VAC	-			
	GT2708-STBD					24VDC				
	GT2708-VTBA	8.4" VGA			White	100 to 240VAC				
	GT2708-VTBD					24VDC				
GT2705	GT2705-VTBD	5.7" VGA	Black	24VDC	Multi-touch compliant					
GT25	GT2512-STBA	12.1" SVGA	TFT color	65536 colors	Black	100 to 240VAC		-		
	GT2512-STBD					24VDC				
	GT2510	GT2510-VTBA			10.4" VGA	Black			100 to 240VAC	-
		GT2510-VTBD							24VDC	
		GT2510-VTWA				White			100 to 240VAC	
		GT2510-VTWD							24VDC	
	GT2508	GT2508-VTBA			8.4" VGA	Black			100 to 240VAC	
		GT2508-VTBD					24VDC			
		GT2508-VTWA				White	100 to 240VAC			
		GT2508-VTWD					24VDC			
GT23	GT2310-VTBA	10.4" VGA	TFT color	65536 colors	Black	100 to 240VAC	-			
	GT2310-VTBD					24VDC				
	GT2308-VTBA	8.4" VGA			Black	100 to 240VAC				
	GT2308-VTBD					24VDC				
GT21	GT2103-PMBD	3.8" [320x128 dots]	TFT monochrome	Monochrome (black/white) 32 shade grayscale 5-color LED (white/green/pink/orange/red)	Black	24VDC	Ethernet, RS-422/485			
	GT2103-PMBDS					24VDC	RS-232, RS-422/485			

*For inquiries relating to the status of conforming to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

Communication units

Product name	Model name	Specifications	Applicable model			
			GT27	GT25	GT23	GT21
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) *1 *2	●	●	-	-
	GT15-RS4-TE	RS-422/485 serial communication unit (terminal block) *1 Usable only when connecting to temperature controllers/indicating controllers via RS-485 or in GOT multi-drop connection	●	●	-	-
Q bus connection unit	GT15-QBUS	Q bus connection (1ch) unit standard model	●	●	-	-
	GT15-QBUS2	Q bus connection (2ch) unit standard model	●	●	-	-
	GT15-75QBUSL	Q bus connection (1ch) unit slim model *3	●	●	-	-
	GT15-75QBUS2L	Q bus connection (2ch) unit slim model *3	●	●	-	-
MELSECNET/H communication unit	GT15-J71LP23-25	Normal station unit (optical loop)	●	●	-	-
	GT15-J71BR13	Normal station unit (coaxial bus)	●	●	-	-
CC-Link IE Controller Network communication unit	GT15-J71GP23-SX	Normal station unit (optical loop)	●	●	-	-
CC-Link IE Field Network communication unit	GT15-J71GF13-T2	Intelligent device station unit	●	●	-	-
CC-Link communication unit	GT15-J61BT13	Intelligent device station unit CC-Link Ver. 2 compliant	●	●	-	-
Wireless LAN communication unit	GT25-WLAN NEW	IEEE802.11b/g/n compliant, built-in antenna, station (wireless LAN adapter), connection to personal computer Compliance with: Japan Radio Law *4, FCC *5, R&TTE *6	●	●	-	-
Serial multi-drop connection unit	GT01-RS4-M	For GOT multi-drop connection	●	●	●	●

*1 The unit may not be able to be used depending on the connection destination. Please refer to the GOT2000 Series Connection Manual.

*2 The unit cannot be used when connecting to temperature controllers/indicating controllers via RS-485 (2-wire type).

*3 The unit cannot be used stacked on other units.

*4 The product with hardware version A complies with the regulation. The product with hardware version A can be used only in Japan.

*5 The product with hardware version B complies with the regulation. The product with hardware version B or later can be used in Japan, the United States, the EU member states, Switzerland, Norway, Iceland, and Liechtenstein.

Option units

Product name	Model name	Specifications	Applicable model			
			GT27	GT25	GT23	GT21
Printer unit	GT15-PRN	USB slave (PictBridge) for printer connection, 1ch Cable for connection between printer unit and printer (3m) included	●	●	-	-
Multimedia unit	GT27-MMR-Z	For video input (NTSC/PAL) 1ch, Record video images/play video files	● *1	-	-	-
Video input unit	GT27-V4-Z	For video input (NTSC/PAL) 4ch	● *1	-	-	-
RGB input unit	GT27-R2-Z	For analog RGB input 2ch	● *1	-	-	-
Video/RGB input unit	GT27-V4R1-Z	For video input (NTSC/PAL) 4ch / analog RGB 1ch input	● *1	-	-	-
RGB output unit	GT27-ROUT-Z	For analog RGB output 1ch	● *1	-	-	-
Sound output unit	GT15-SOUT	For sound output (ø3.5 stereo pin jack)	●	●	-	-
External I/O unit	GT15-DIOR	For external I/O devices and operation panel connection (negative common input / source type output)	●	●	-	-
	GT15-DIO	For external I/O devices and operation panel connection (positive common input / sink type output)	●	●	-	-
SD card unit	GT21-03SDCD NEW	For SD card mounting	-	-	-	●

*1 Not supported by the 5.7-inch model.

Software

Product name	Model name	Contents	
HMI/GOT Screen Design Software MELSOFT GT Works3	SW1DND-GTWK3-E	English Version	Standard license product
	SW1DND-GTWK3-EA		Volume license product *1
	SW1DND-GTWK3-EAZ		Additional license product *1 *6
FA Integrated Engineering Software MELSOFT iQ Works *2 *3	SW2DND-IQWK-E NEW	English Version	Standard license product
License key for GT SoftGOT2000 *4	GT27-SGTKEY-U	USB port licence key	
Remote Personal Computer Operation Function (Ethernet) License *5	GT25-PCRAKEY	1 license	
VNC Server Function License *5	GT25-VNCSKEY	1 license (License for GOT remote access function)	
MES I/F Function License *5	GT25-MESIFKEY	1 license	

*1 The desired number of licenses (2 or more) can be purchased. For details, please contact your local sales office.

*2 Volume license product and additional license product are also available. For more details, please refer to the MELSOFT iQ Works catalog (L(NA)08232ENG).

*3 The product includes the following software.

- System Management Software [MELSOFT Navigator]
- Programmable Controller Engineering Software [MELSOFT GX Works2]
- Motion Controller Engineering Software [MELSOFT MT Works2]
- Screen Design Software for Graphic Operation Terminal [MELSOFT GT Works3]
- Robot Engineering Software [MELSOFT RT ToolBox2 mini]
- Inverter Setup Software [FR Configurator2]

*4 To use GT SoftGOT2000, a license key for GT SoftGOT2000 is necessary for each personal computer.

*5 1 license is required for 1 GOT unit.

*6 This product does not include the DVD-ROM. Only the license certificate with the product ID No. is issued.

Options

Product name	Model name	Specifications	Applicable model				
			GT27	GT25	GT23	GT21	
Protective sheet *1	GT27-15PSGC	For 15"	●	-	-	-	
	GT25-12PSGC	For 12.1"	●	●	-	-	
	GT25-10PSGC	For 10.4"	●	●	-	-	
	GT25-08PSGC	For 8.4"	●	●	-	-	
	GT25-05PSGC	For 5.7"	●	-	-	-	
	GT27-15PSCC	For 15"	●	-	-	-	
	GT25-12PSCC	For 12.1"	●	●	-	-	
	GT25-10PSCC	For 10.4"	●	●	-	-	
	GT25-08PSCC	For 8.4"	●	●	-	-	
	GT25-05PSCC	For 5.7"	●	-	-	-	
	GT21-03PSGC-UC	For 3.8"	Surface treatment: anti-glare Sheet color: transparent USB environmental protection cover area: closed *2 Number of sheets included in a set: 5	-	-	-	●
	GT25-12PSCC-UC	For 12.1"	●	●	-	-	
	GT25-10PSCC-UC	For 10.4"	●	●	●	-	
	GT25-08PSCC-UC	For 8.4"	●	●	●	-	
GT25-05PSCC-UC	For 5.7"	●	-	-	-		
GT21-03PSCC-UC	For 3.8"	Surface treatment: anti-glare Sheet color: transparent USB environmental protection cover area: closed *2 Number of sheets included in a set: 5	-	-	-	●	
USB environmental protection cover	GT25-UCOV	For 15"/12.1"/10.4"/8.7"	●	●	-	-	
	GT25-05UCOV	For 5.7"	●	-	-	-	
Protective cover for oil *3	GT20-15PCO	For 15"	●	-	-	-	
	GT20-12PCO	For 12.1"	●	●	-	-	
	GT20-10PCO	For 10.4"	●	●	●	-	
	GT20-08PCO	For 8.4"	●	●	●	-	
	GT25-05PCO	For 5.7"	●	-	-	-	
	GT10-20PCO	For 3.8"	-	-	-	●	
Stand	GT15-90STAND	For 15"	●	-	-	-	
	GT15-80STAND	For 12.1"	●	●	-	-	
	GT15-70STAND	For 10.4"/8.4"	●	●	●	-	
	GT15-50STAND	For 5.7"	●	-	-	-	
Memory card	SD card	L1MEM-2GBSD	2GB SD memory card for GOT	●	●	●	●
		L1MEM-4GBSD	4GB SDHC memory card for GOT	●	●	●	●
	CF card	GT05-MEM-128MC	128MB CF card for GT27-MMR-Z	●	-	-	-
		GT05-MEM-256MC	256MB CF card for GT27-MMR-Z	●	-	-	-
		GT05-MEM-512MC	512MB CF card for GT27-MMR-Z	●	-	-	-
		GT05-MEM-1GC	1GB CF card for GT27-MMR-Z	●	-	-	-
		GT05-MEM-2GC	2GB CF card for GT27-MMR-Z	●	-	-	-
		GT05-MEM-4GC	4GB CF card for GT27-MMR-Z	●	-	-	-
		GT05-MEM-8GC	8GB CF card for GT27-MMR-Z	●	-	-	-
		GT05-MEM-16GC	16GB CF card for GT27-MMR-Z	●	-	-	-
Memory card adapter	GT05-MEM-ADPC	CF card →memory card (TYPE II) conversion adapter for GT27-MMR-Z	●	-	-	-	
Attachment	GT15-70ATT-98	For 10.4"	For conversion from GT168□, GT158□, A985GOT *4	●	●	●	-
	GT15-70ATT-87		For conversion from A870GOT-SWS/TWS, A8GT-70GOT-TB/TW/SB/SW	●	●	●	-
	GT15-60ATT-97		For conversion from GT167□, GT157□, A97□GOT	●	●	●	-
	GT15-60ATT-96		For conversion from A960GOT	●	●	●	-
	GT15-60ATT-87	For 8.4"	For conversion from A870GOT-EWS, A8GT-70GOT-EB/EW, A77GOT-EL, A77GOT-EL-S5/S3	●	●	●	-
	GT15-60ATT-77		For conversion from A77GOT-CL, A77GOT-CL-S5/S3, A77GOT-L, A77GOT-L-S5/S3	●	●	●	-
	GT15-50ATT-95W	For 5.7"	For conversion from A956WGOT, F940WGOT	●	-	-	-
	GT15-50ATT-85		For conversion from A85□GOT	●	-	-	-
Battery	GT11-50BAT	Battery for backup of SRAM data, clock data, and system status log data	● (For replacement)	● (For replacement)	● (Option)	-	

*1 The white model does not have the front USB interface. It is recommended to use the products that the USB environmental protection cover area is closed.

*2 When using the product with the USB environmental protection cover area closed, the front USB interface cannot be used.

*3 Check if the protective cover for oil can be used in the actual environment before use. When using the cover, the front USB interface and human sensor cannot be used.

*4 Including the GP250□ and GP260□ manufactured by Digital Electronics Corporation.

Cables

Product name		Model name	Cable length	Recommended product [※]	Specifications	Applicable model							
						GT27	GT25	GT23	GT21				
QCPU bus connection cable	QCPU connection cable GOT-to-GOT connection cable	GT15-QC06B	0.6m	○	Between QCPU and GOT Between GOT and GOT	●	●	-	-				
		GT15-QC12B	1.2m										
		GT15-QC30B	3m										
		GT15-QC50B	5m										
		GT15-QC100B	10m										
	QCPU connection cable GOT-to-GOT connection cable (for long distance connection)	GT15-QC150BS	15m	○	Between QCPU and GOT (for long-distance connection) A9GT-QCNB required Between GOT and GOT (for long-distance connection)	●	●	-	-				
		GT15-QC200BS	20m										
		GT15-QC250BS	25m										
		GT15-QC300BS	30m										
		GT15-QC350BS	35m										
Bus extension connector box		A9GT-QCNB	-	-	Attach to PLC main base when using QCPU and GOT long-distance connection	●	●	-	-				
Ferrite core set for Q bus cable		GT15-QFC	-	-	Attach to GOT-A900 bus connection cable when replacing existing GOT-A900 with GOT2000 (two-pack)	●	●	-	-				
RS-485 terminal block conversion unit		FA-LTBGT2R4CBL05	0.5m	○	RS-485 terminal block conversion unit With cable for connection between RS-422/485 (connector) of GOT2000 and RS-485 terminal block conversion unit	●	●	-	-				
		FA-LTBGT2R4CBL20	2m										
RS-422 conversion cable		FA-CNV2402CBL	0.2m	○	Between QCPU/L02SCPU(-P) and RS-422 cable (GT01-C□R4-25P, GT10-C□R4-25P, GT21-C□R4-25P5) Between L6ADP-R2 and RS-422 cable (GT01-C□R4-25P, GT10-C□R4-25P, GT21-C□R4-25P5) [MINI-DIN6 pin and D-sub 25-pin]	●	●	●	●				
		FA-CNV2405CBL	0.5m										
RS-422 cable	QnA/ACPU direct connection cable Computer link connection cable CC-Link(G4) connection cable	GT01-C30R4-25P	3m	-	Between QnA/ACPU/motion controller CPU (A series)/FXCPU and GOT Between RS-422 conversion cable (FA-CNV□CBL) and GOT Between serial communication module and GOT Between peripheral connection module (AJ65BT-G4-S3) and GOT [Between D-sub 25-pin and D-sub 9-pin]	●	●	●	● ^{※3}				
		GT01-C100R4-25P	10m										
		GT01-C200R4-25P	20m										
		GT01-C300R4-25P	30m										
		GT10-C30R4-25P	3m										
		GT10-C100R4-25P	10m										
		GT10-C200R4-25P	20m										
		GT10-C300R4-25P	30m										
		GT21-C30R4-25P5	3m										
		GT21-C100R4-25P5	10m										
	Computer link connection cable	GT09-C30R4-6C	3m	○	Between serial communication module and GOT Between computer link module and GOT [Between loose wire and D-sub 9-pin]	●	●	●	● ^{※3}				
		GT09-C100R4-6C	10m										
		GT09-C200R4-6C	20m										
		GT09-C300R4-6C	30m										
		GT01-C10R4-8P	1m			-	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and D-sub 9-pin]	●	●	●	● ^{※3}		
		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	20m											
	GT10-C300R4-8P	30m											
	FXCPU direct connection cable FXCPU communication expansion board connection cable	GT21-C10R4-8P5	1m	-	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and loose wire (connector terminal block 9-pin)]	-	-	-	● ^{※3}				
		GT21-C30R4-8P5	3m										
		GT21-C100R4-8P5	10m										
		GT21-C200R4-8P5	20m										
		GT21-C300R4-8P5	30m										
		GT10-C10R4-8P	1m			-	Between FXCPU and GOT Between FXCPU communication expansion board and GOT [Between MINI-DIN 8-pin and loose wire (connector terminal block 9-pin)] * Cannot be used for FX1NC, FX2NC, FX3UC-D/DSS, or FX3G.	-	-	-	● ^{※3}		
		GT10-C10R4-8PC	1m										
		GT10-C30R4-8PC	3m										
		GT10-C100R4-8PC	10m										
		GT10-C200R4-8PC	20m										
	GT10-C300R4-8PC	30m											
	RS-422 connector conversion cable		GT10-C02H-9SC	0.2m	-			Between PLC and GOT [Convert D-sub 9-pin to loose wire (connector terminal block 9-pin)]	-	-	-	● ^{※3}	
	RS-232 cable	Q/LCPU direct connection cable	GT01-C30R2-6P	3m	-			Between Q/LCPU and GOT Between L6ADP-R2 and GOT/personal computer (GT SoftGOT2000) [Between MINI-DIN 6-pin and D-sub 9-pin]	●	●	●	● ^{※3}	
			FXCPU communication expansion board connection cable	GT01-C30R2-9S	3m			-	Between FXCPU communication expansion board and GOT/personal computer (GT SoftGOT2000) Between FXCPU communication special adapter and GOT/personal computer (GT SoftGOT2000) [Between D-sub 9-pin and D-sub 9-pin]	●	●	●	● ^{※3}
			FXCPU communication special adapter connection cable	GT01-C30R2-25P	3m			-	Between FXCPU communication special adapter and GOT/personal computer (GT SoftGOT2000) [Between D-sub 25-pin connector and D-sub 9-pin]	●	●	●	● ^{※3}
		Computer link connection cable CC-Link(G4) connection cable	GT09-C30R2-9P	3m	○	Between serial communication module and GOT Between computer link module and GOT Between peripheral connection module (AJ65BT-R2N) and GOT [Between D-sub 9-pin and D-sub 9-pin]	●	●	●	● ^{※3}			
GT09-C30R2-25P			3m	○	Between serial communication module and GOT Between computer link module and GOT [Between D-sub 25-pin and D-sub 9-pin]	●	●	●	● ^{※3}				
Computer link connection cable		GT10-C02H-6PT9P	0.2m	-	Between PLC and GOT Between multiple connection GOT and GOT Between barcode reader, RFID, serial printer and GOT [Convert D-sub 9-pin to MINI-DIN 6-pin]	-	-	-	● ^{※3}				
Data transfer cable		GT01-C30R2-6P	3m	-	Between GOT and personal computer * Can be used for the FA transparent function only. Cannot be used for the screen/OS data transfer. [Between MINI-DIN 6-pin and D-sub 9-pin]	-	-	-	● ^{※3}				
External I/O unit connection conversion cable		GT15-C03HTB	0.3m	○	Between external I/O unit (GT15-DIO) and GOT-A900 external I/O interface unit connection cable (A8GT-C05TK, A8GT-C30TB, user-fabricated cable)	●	●	-	-				
Analog RGB cable		GT15-C50VG	5m	○	Between external monitor, personal computer and vision sensor and GOT	●	-	-	-				
USB cable	Data transfer cable Printer connection cable	GT09-C30USB-5P	3m	○	Between personal computer (screen design software) and GOT Between personal computer (GT SoftGOT2000) and QnU/L/FXCPU Between PictBridge-compatible printer and printer unit (GT15-PRN) [Between USB-A and USB Mini-B]	●	●	●	● ^{※6}				
		Panel-mounted USB Port Extension	GT10-C10EXUSB-5S	1m	-	For extending a USB port of GOT into the control panel.	-	-	-	●			

※1 FA-LTBGT2R4CBL□, FA-CNV240□CBL are developed by Mitsubishi Electric Engineering Company Limited and sold through your local sales office.
The other products listed are developed by Mitsubishi Electric Systems & Service Co., LTD. and sold through your local sales office.
※2 This cable can be used for GT2103-PMBD only.
※3 This cable can be used for GT2103-PMBDS only.
※4 This cable can be used if connected with the RS-422 connector conversion cable GT10-C02H-9SC.
※5 This cable can be used if connected with the RS-232 connector conversion cable GT10-C02H-6PT9P.
※6 This cable cannot be used for printer connection.

Cables for non-Mitsubishi FA products

RS-232 and RS-422 cables are available from every manufacturer. For more details, please see the GOT2000 Series Connection Manual.

Manuals

Manual name	Manual number
GOT2000 Series User's Manual (Hardware)	SH-081194ENG
GOT2000 Series User's Manual (Utility)	SH-081195ENG
GOT2000 Series User's Manual (Monitor)	SH-081196ENG
GOT2000 Series Connection Manual (Mitsubishi Products) for GT Works3 Version1	SH-081197ENG
GT Designer3 (GOT2000) Screen Design Manual	SH-081220ENG

Warranty

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

Gratis Warranty Term and Gratis Warranty Range

If any faults or defects (hereinafter "Failure") found to be the responsibility of Mitsubishi occurs during use of the product within the gratis warranty term, the product shall be repaired at no cost via the sales representative or Mitsubishi Service Company.

However, if repairs are required onsite at domestic or overseas location, expenses to send an engineer will be solely at the customer's discretion. Mitsubishi shall not be held responsible for any re-commissioning, maintenance, or testing on-site that involves replacement of the failed module.

■Gratis Warranty Term

The gratis warranty term of the product shall be for thirty-six (36) months after the date of purchase or delivery to a designated place.

Note that after manufacture and shipment from Mitsubishi, the maximum distribution period shall be six (6) months, and the longest gratis warranty term after manufacturing shall be forty-two (42) months. The gratis warranty term of repair parts shall not exceed the gratis warranty term before repairs.

■Gratis Warranty Range

- (1) The customer shall be responsible for the primary failure diagnosis unless otherwise specified.
If requested by the customer, Mitsubishi Electric Corporation or its representative firm may carry out the primary failure diagnosis at the customer's expense. The primary failure diagnosis will, however, be free of charge should the cause of failure be attributable to Mitsubishi Electric Corporation.
- (2) The range shall be limited to normal use within the usage state, usage methods, usage environment, etc. which follow the conditions, precautions, etc. given in the instruction manual, user's manual, caution labels on the product, etc.
- (3) Even within the gratis warranty term, repairs shall be charged for in the following cases.
 - ① Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
 - ② Failure caused by unapproved modifications, etc., to the product by the user.
 - ③ When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
 - ④ Failure that could have been avoided if consumable parts designated in the user's manual etc. had been correctly serviced or replaced.
 - ⑤ Replacement of consumable parts (battery, display device, touch panel, fuse, etc.).
 - ⑥ Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
 - ⑦ Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.
 - ⑧ Any other failure found not to be the responsibility of Mitsubishi or that admitted not to be so by the user.

Onerous repair term after discontinuation of production

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

Overseas service

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

Exclusion of loss in opportunity and secondary loss from warranty liability

Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to damages caused by any cause found not to be the responsibility of Mitsubishi, loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products, special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products, replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

Changes in product specifications

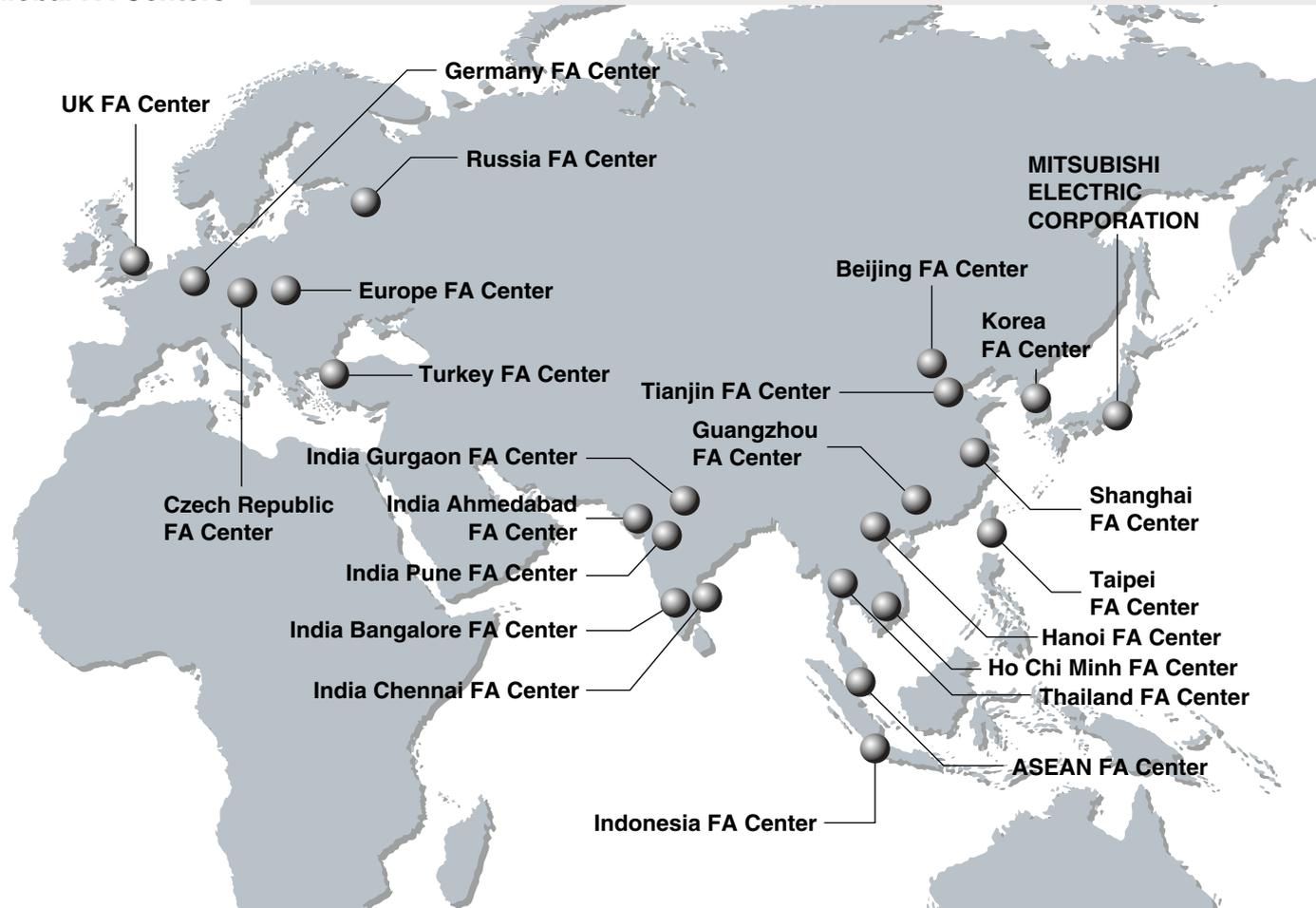
The specifications given in the catalogs, manuals or technical documents are subject to change without prior notice.

Product application

- (1) In using the Mitsubishi graphic operation terminal, the usage conditions shall be that the application will not lead to a major accident even if any problem or fault should occur in the graphic operation terminal device, and that backup and fail-safe functions are systematically provided outside of the device for any problem or fault.
- (2) The Mitsubishi graphic operation terminal has been designed and manufactured for applications in general industries, etc. Thus, applications in which the public could be affected such as in nuclear power plants and other power plants operated by respective power companies, and applications in which a special quality assurance system is required, such as for Railway companies or Public service purposes shall be excluded from the graphic operation terminal applications. In addition, applications in which human life or property that could be greatly affected, such as in aircraft, medical applications, incineration and fuel devices, manned transportation equipment for recreation and amusement, and safety devices, shall also be excluded from the graphic operation terminal range of applications.
However, in certain cases, some applications may be possible, providing the user consults the local Mitsubishi representative outlining the special requirements of the project, and providing that all parties concerned agree to the special circumstances, solely at our discretion. In some of these cases, however, Mitsubishi Electric Corporation may consider the possibility of an application, provided that the customer notifies Mitsubishi Electric Corporation of the intention, the application is clearly defined and any special quality is not required.

"Mitsubishi Global FA Centers" are located around the world in

Global FA Centers



China Mainland

Shanghai FA Center
MITSUBISHI ELECTRIC AUTOMATION (CHINA) LTD.
 No.1386 Hongqiao Road, Mitsubishi Electric
 Automation Center, Shanghai, China
 Tel: +86-21-2322-3030 / Fax: +86-21-2322-3000(9611#)

Beijing FA Center
MITSUBISHI ELECTRIC AUTOMATION (CHINA) LTD.
Beijing Branch
 Unit 901, 9F, Office Tower 1, Henderson Centre, 18
 Jianguomennei Avenue, Dongcheng District,
 Beijing, China
 Tel: +86-10-6518-8830 / Fax: +86-10-6518-2938

Tianjin FA Center
MITSUBISHI ELECTRIC AUTOMATION (CHINA) LTD.
Tianjin Branch
 Room 2003 City Tower, No.35, Youyi Road, Hexi
 District, Tianjin, China
 Tel: +86-22-2813-1015 / Fax: +86-22-2813-1017

Guangzhou FA Center
MITSUBISHI ELECTRIC AUTOMATION (CHINA) LTD.
Guangzhou Branch
 Room 1609, North Tower, The Hub Center, No.1068,
 Xingang East Road, Haizhu District, Guangzhou, China
 Tel: +86-20-8923-6730 / Fax: +86-20-8923-6715

Korea

Korea FA Center
MITSUBISHI ELECTRIC AUTOMATION KOREA CO., LTD.,
 7F-9F, Gangseo Hangang Xi-tower A, 401,
 Yangcheon-ro, Gangseo-Gu, Seoul 157-801, Korea
 Tel: +82-2-3660-9632 / Fax: +82-2-3663-0475

Taiwan

Taipei FA Center
SETSUYO ENTERPRISE CO., LTD.
 3F, No.105, Wugong 3rd Road, Wugu District,
 New Taipei City 24889, Taiwan, R.O.C.
 Tel: +886-2-2299-9917 / Fax: +886-2-2299-9963

ASEAN

ASEAN FA Center
MITSUBISHI ELECTRIC ASIA PTE. LTD.
 307, Alexandra Road, Mitsubishi Electric Building,
 Singapore 159943
 Tel: +65-6470-2480 / Fax: +65-6476-7439

Indonesia

Indonesia FA Center
PT. MITSUBISHI ELECTRIC INDONESIA
Cikarang Office
 Jl. Kenari Raya Blok G2-07A Delta Silicon 5,
 Lippo Cikarang - Bekasi 17550, Indonesia
 Tel: +62-21-2961-7797 / Fax: +62-21-2961-7794

Vietnam

Hanoi FA Center
MITSUBISHI ELECTRIC VIETNAM COMPANY LIMITED
Hanoi Branch
 6 - Floor, Detech Tower, 8 Ton That Thuyet Street,
 My Dinh 2 Ward, Nam Tu Liem District, Hanoi,
 Vietnam
 Tel: +84-4-3937-8075 / Fax: +84-4-3937-8076

Ho Chi Minh FA Center
MITSUBISHI ELECTRIC VIETNAM COMPANY LIMITED
 Unit 01-04, 10th Floor, Vincom Center, 72 Le
 Thanh Ton Street, District 1, Ho Chi Minh City,
 Vietnam
 Tel: +84-8-3910-5945 / Fax: +84-8-3910-5947

Thailand

Thailand FA Center
MITSUBISHI ELECTRIC FACTORY AUTOMATION
(THAILAND) CO., LTD.
 12th Floor, SV. City Building, Office Tower 1, No.896/19
 and 20 Rama 3 Road, Kwaeng Bangpongpan,
 Khet Yannawa, Bangkok 10120, Thailand
 Tel: +66-2682-6522 to 31 / Fax: +66-2682-6020

Asia, North America and Europe to provide optimum services.



Line up

Features

Functions

FA Solutions

Specifications

Product list

Support

India

India Pune FA Center
MITSUBISHI ELECTRIC INDIA PVT. LTD.
Pune Branch
 Emerald House, EL -3, J Block, M.I.D.C., Bhosari,
 Pune - 411026, Maharashtra, India
 Tel: +91-20-2710-2000 / Fax: +91-20-2710-2100

India Gurgaon FA Center
MITSUBISHI ELECTRIC INDIA PVT. LTD.
Gurgaon Head Office
 2nd Floor, Tower A & B, Cyber Greens, DLF Cyber City,
 DLF Phase - III, Gurgaon - 122002 Haryana, India
 Tel: +91-124-463-0300 / Fax: +91-124-463-0399

India Bangalore FA Center
MITSUBISHI ELECTRIC INDIA PVT. LTD.
Bangalore Branch
 Prestige Emerald, 6th Floor, Municipal No.2,
 Madras Bank Road (Lavelle Road), Bangalore -
 560001, Karnataka, India
 Tel: +91-80-4020-1600 / Fax: +91-80-4020-1699

India Chennai FA Center
MITSUBISHI ELECTRIC INDIA PVT. LTD.
Chennai Branch
 "Citilight Corporate Centre" No.1, Vivekananda
 Road, Srinivasa Nagar, Chetpet, Chennai - 600031,
 Tamil Nadu, India
 Tel: +91-44-4554-8772 / Fax: +91-44-4554-8773

India Ahmedabad FA Center
MITSUBISHI ELECTRIC INDIA PVT. LTD.
Ahmedabad Branch
 B/4, 3rd Floor, Safal Profitaire, Corporate Road,
 Prahaladnagar, Satellite, Ahmedabad,
 Gujarat - 380015, India
 Tel: +91-79-6512-0063 / Fax: +91-79-6512-0063

Americas
North America FA Center
MITSUBISHI ELECTRIC AUTOMATION, INC.
 500 Corporate Woods Parkway, Vernon Hills, IL 60061, U.S.A.
 Tel: +1-847-478-2100 / Fax: +1-847-478-2253

Mexico
Mexico FA Center
MITSUBISHI ELECTRIC AUTOMATION, INC.
Mexico Branch
 Mariano Escobedo #69, Col. Zona Industrial,
 Tlalnepantla Edo, C.P.54030, Mexico
 Tel: +52-55-3067-7511 / Fax: -

Brazil
Brazil FA Center
MITSUBISHI ELECTRIC DO BRASIL COMÉRCIO E
SERVIÇOS LTDA.
 Rua Jussara, 1750- Bloco B Anexo, Jardim Santa Cecilia,
 CEP 06465-070, Barueri, - SP, Brasil
 Tel: +55-11-4689-3000 / Fax: +55-11-4689-3016

Europe
Europe FA Center
MITSUBISHI ELECTRIC EUROPE B.V. Polish Branch
 32-083 Balice ul. Krakowska 50, Poland
 Tel: +48-12-630-47-00 / Fax: +48-12-630-47-01

Germany FA Center
MITSUBISHI ELECTRIC EUROPE B.V. German Branch
 Gothaer Strasse 8, D-40880 Ratingen, Germany
 Tel: +49-2102-486-0 / Fax: +49-2102-486-1120

UK FA Center
MITSUBISHI ELECTRIC EUROPE B.V. UK Branch
 Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, U.K.
 Tel: +44-1707-28-8780 / Fax: +44-1707-27-8695

Czech Republic FA Center
MITSUBISHI ELECTRIC EUROPE B.V. Czech Branch
 Avenir Business Park, Radlicka 751/113e, 158 00
 Praha5, Czech Republic
 Tel: +420-251-551-470 / Fax: +420-251-551-471

Russia FA Center
MITSUBISHI ELECTRIC EUROPE B.V. Russian Branch
St. Petersburg Office
 Piskarevsky pr. 2, bld 2, lit "Sch", BC "Benua",
 office 720; 195027, St. Petersburg, Russia
 Tel: +7-812-633-3497 / Fax: +7-812-633-3499

Turkey FA Center
MITSUBISHI ELECTRIC TURKEY A.S. Umraniye
Branch
 Serifali Mahallesi Nutuk Sokak No:5, TR-34775
 Umraniye, Istanbul, Turkey
 Tel: +90-216-526-3990 / Fax: +90-216-526-3995

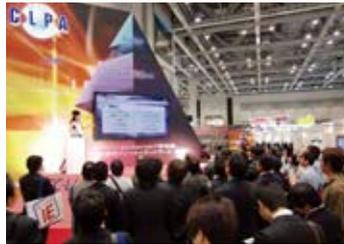
CC-Link Partner Association (CLPA) - Actively promoting worldwide adoption of CC-Link networks

Proactively supporting CC-Link, from promotion to specification development

The CC-Link Partner Association (CLPA) was established to promote the worldwide adoption of the CC-Link open-field network. By conducting promotional activities such as organizing trade shows and seminars, conducting conformance tests, and providing catalogs, brochures and website information, CLPA activities are successfully increasing the number of CC-Link partner manufacturers and CC-Link-compatible products. As such, CLPA is playing a major role in the globalization of CC-Link.



Seminar



Trade show



Conformance testing lab

Visit the CLPA website for the latest CC-Link information.

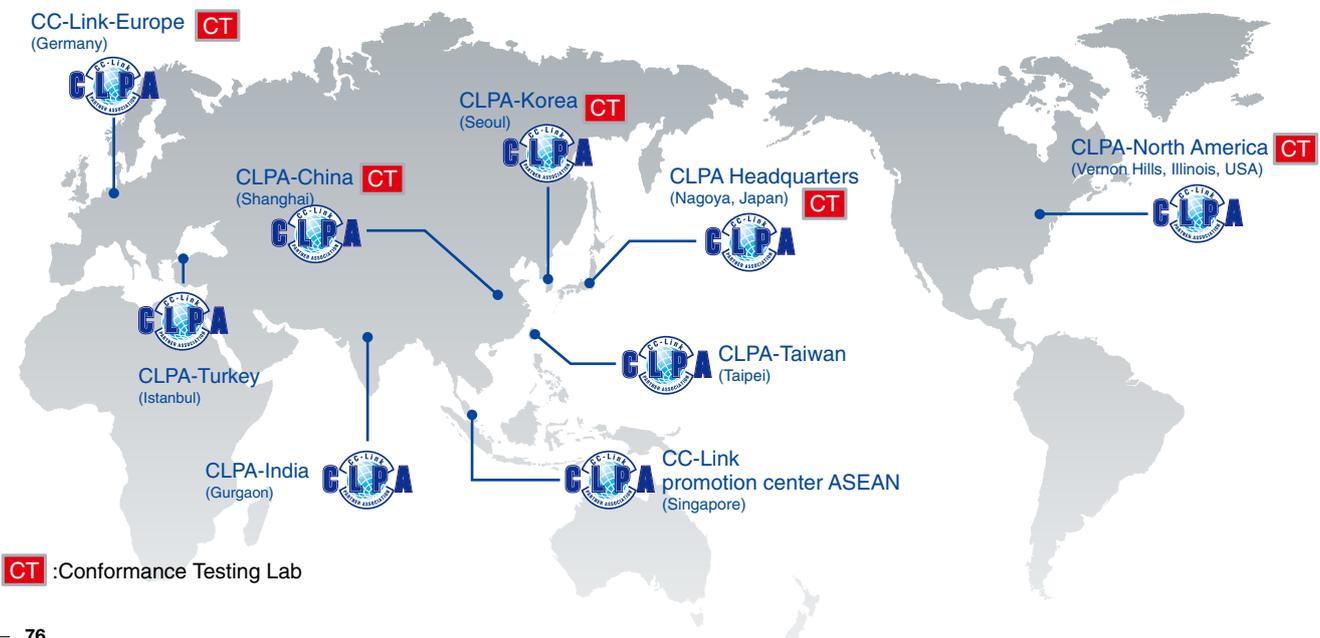
URL:<http://www.cc-link.org>

6F Ozone Front Bldg. 3-15-58 Ozone
Kita-ku, Nagoya 462-0825, JAPAN
TEL: +81-52-919-1588 FAX: +81-52-916-8655
E-mail:info@cc-link.org



Global influence of CC-Link continues to spread

CC-Link is supported globally by CLPA. With offices throughout the world, support for partner companies can be found locally. Each regional CLPA office undertakes various support and promotional activities to further the influence of the network in that part of the world. For companies looking to increase their presence in Asia, CLPA is well placed to assist these efforts through offices in all major Asian regions.



Revolutionary, next-generation controllers building a new era in automation



MELSEC iQ-R series



As the core for the next-generation automation environment, realizing an automation controller with added value while reducing TCO

To succeed in highly competitive markets, it's important to build automation systems that ensure high productivity and consistent product quality. The MELSEC iQ-R Series has been developed from the ground up based on common problems faced by customers and rationalizing them into seven key areas: Productivity, Engineering, Maintenance, Quality, Connectivity, Security and Compatibility. Mitsubishi Electric is taking a three-point approach to solving these problems: **Reduce TCO***, increasing **Reliability** and **Reuse** of existing assets. As a bridge to the next generation in automation, the MELSEC iQ-R Series is a driving force behind **revolutionary** progress in the future of manufacturing.

*TCO: Total cost of ownership

Reduce TCO

Productivity
Improve productivity through advanced performance/functionality

- New high-speed system bus realizing shorter production cycle
- Super-high-accuracy motion control utilizing advanced multiple CPU features
- Inter-modular synchronization resulting in increased processing accuracy

Engineering
Reducing development costs through intuitive engineering

- Intuitive engineering environment covering the product development cycle
- Simple point-and-click programming architecture
- Understanding globalization by multiple language support

Maintenance
Reduce maintenance costs and downtime utilizing easier maintenance features

- Visualize entire plant data in real-time
- Extensive preventative maintenance functions embedded into modules

Connectivity
Seamless network reduces system costs

- Seamless connectivity within all levels of manufacturing
- High-speed and large data bandwidth ideal for large-scale control systems
- Easy connection of third-party components utilizing device library

Reliability

Security
Robust security that can be relied on

- Protect intellectual property
- Unauthorized access protection across distributed control network

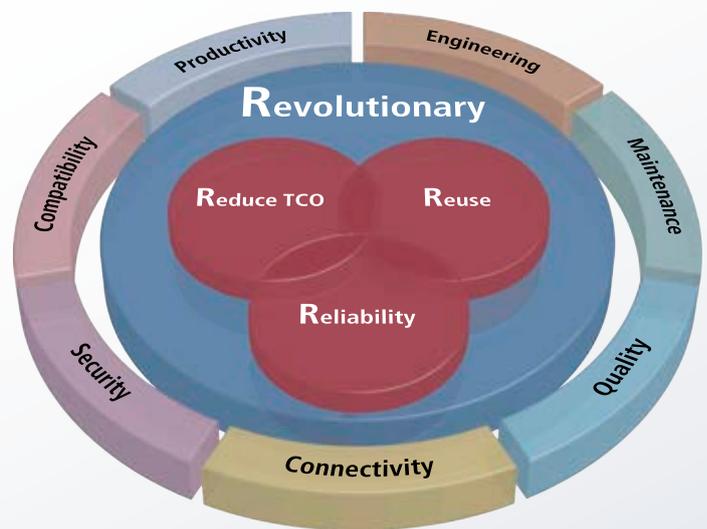
Quality
Reliable and trusted MELSEC product quality

- Robust design ideal for harsh industrial environments
- Improve and maintain actual manufacturing quality
- Conforms to main international standards

Reuse

Compatibility
Extensive compatibility with existing products

- Utilize existing assets while taking advantage of cutting-edge technology
- Compatible with most existing MELSEC-Q Series I/O



One Software, Many Possibilities

GX Works3

Intuitive and easy engineering

With GX Works3 programming cannot be made any easier with various intuitive features such as graphic-based system configuration and an extensive module library provided as standard. In addition to multiple language support realizing a global engineering tool required for current automation needs.

For details, please refer to the "MELSEC iQ-R Series iQ Platform-compatible PAC" catalog.

The release date varies depending on the product and your region. For details, please contact your local sales office.

FA Products

PLC

MELSEC-Q Series Universal Model



Introducing the high-speed QCPU (QnUDVCPU) for faster processing of large data volumes.

- ◎Realize high-speed, high-accuracy machine control with various iQ Platform compatible controllers and multiple CPUs.
- ◎Easily connect to GOTs and Programming tools using built-in Ethernet port.
- ◎25 models from 10K steps small capacity to 1000K steps large capacity, are available.
- ◎Seamless communication and flexible integration at any network level.

Product Specifications

Program capacity	10K steps to 1000K steps
Number of I/O points [X/Y], number of I/O device points [X/Y]	256 points to 4096 points/8192 points
Basic instruction processing speed (LD instruction)	120 ns to 1.9 ns
External connection interface	USB (all models equipped), Ethernet, RS-232, memory card, extended SRAM cassette
Function module	I/O, analog, high-speed counter, positioning, simple motion, temperature input, temperature control, network module
Module extension style	Building block type
Network	Ethernet, CC-Link IE controller network, CC-Link IE field network, CC-Link, CC-Link/LT, MELSECNET/H, SSCNETIII (/H), AnyWire, RS-232, RS-422

Programmable Controller | MELSEC-L Series



“Light & Flexible” condensing various functions easily and flexibly.

- ◎CPU equipped as a standard with various functions including counter, positioning and CC-Link.
- ◎The base-less structure with high degree of freedom saves space in the control panel.
- ◎Easily confirm the system status and change the settings with the display unit.
- ◎Ten models are available in program capacities from 20 k steps to 260 k steps.

Product specifications

Program capacity	20 k steps/60 k steps/260 k steps
Number of input/output points [X/Y]	1024 points/4096 points
Number of input/output device points [X/Y]	8192 points
Basic instruction processing speed (LD instruction)	60 ns/ 40 ns/ 9.5 ns
External connection interface	USB, Ethernet, RS-232, SD memory card, CC-Link (L26CPU-BT/PBT)
Function modules	I/O, analog, high-speed counter, positioning, simple motion, temperature control, network module
Unit expansion style	Base-less structure
Network	Ethernet, CC-Link IE Field network, CC-Link, CC-Link/LT, SSCNETIII(/H), RS-232, RS-422

PLC

MELSEC-F Series



All-in-One Micro Programmable Controller equipped with all necessary functions in a compact body

- ◎Supporting small-scale control from 10 points to 384 points (using CC-Link) with an outstanding cost performance.
- ◎Wide range of options available for additional functions required by your system.
- ◎Easy to use and highly reliable. More than 12 million units have shipped worldwide. (April 2013)
- ◎Small-scale control is available in various networks such as CC-Link, Ethernet, and MODBUS.

Product specifications

Program capacity	16k steps (FX3S) to 64 k steps (FX3U/FX3UC)
Number of input/output points	10 points (FX3S) to 384 points (FX3U/FX3UC with CC-Link)
Basic instruction processing speed	0.21 μs (FX3S) to 65 ns (FX3U/FX3UC)
External connection interface	RS-422, USB (FX3S/FX3G/FX3GC/FX3GE only), Ethernet (FX3GE only), CC-Link/LT (FX3UC-32MT-LT(-2) only)
Built-in functions	I/O, high-speed counter input, positioning pulse output, analog (FX3GE only)
Extended functions	I/O, analog, temperature control, high-speed counter, positioning, network
Unit expansion style	Backplane-less design
Network	Ethernet, CC-Link, CC-Link/LT, SSCNETIII, CANopen, J1939, RS-232C, RS-422, RS-485, MODBUS



Industry-leading level of high performance servo

- ◎ Industry-leading level of basic performance: Speed frequency response (2.5kHz), 4,000,000 (4,194,304p/rev) encoder
- ◎ Advanced one-touch tuning function achieves the one-touch adjustment of advanced vibration suppression control II, etc.
- ◎ Equipped with large capacity drive recorder and machine diagnosis function for easy maintenance.
- ◎ 2-axis and 3-axis servo amplifiers are available for energy-conservative, space-saving, and low-cost machines.

Product Specifications

Power supply specifications	1-phase/3-phase 200V AC, 1-phase 100V AC, 3-phase 400V AC
Command interface	SSCNET III/H, SSCNET III (compatible in J3 compatibility mode), CC-Link IE Field Network interface with Motion, pulse train, analog
Control mode	Position/Speed/Torque/Positioning function/Fully closed loop
Speed frequency response	2.5kHz
Tuning function	Advanced one-touch tuning, advanced vibration suppression control II, robust filter, etc.
Functional safety	Conforms to functions of IEC/EN 61800-5-2, STO: Category 3 PL d, SIL 2 Conforms to Category 4 PL e, SIL 3 by a combination with MR-D30 functional safety unit
Compatible servo motor	Rotary servo motor (rated output: 0.05 to 55kW), linear servo motor (continuous thrust 50 to 3000N), direct drive motor (rated torque: 2 to 240N·m)



High performance and easy to use servo system for all machines

- ◎ Easy To Use: The advanced one-touch tuning function enables servo adjustment with one-touch ease without a personal computer.
- ◎ High Performance: Class top-level basic performance including speed frequency response of 2.0kHz.
- ◎ Global Standard: Digital input/output is compatible with both sink and source type connections as a standard.

Product specifications

Power supply specifications	1-phase/3-phase 200V AC
Command interface	Pulse train, analog
Control mode	Position/speed/torque
Speed frequency response	2.0kHz
Tuning function	Advanced one-touch tuning, advanced vibration control II, robust filter, etc.
Compatible servo motor	Rotary servo motor (rated output: 0.1 to 3kW)



High-functionality, high-performance inverter

- ◎ Realize even higher responsiveness during real sensor-less vector control or vector control, and achieve faster operating frequencies.
- ◎ The latest automatic tuning function supports various induction motors and also sensor-less PM motors.
- ◎ The standard model is compatible with EU Safety Standards STO (PLd, SIL2). Add options to support higher level safety standards.
- ◎ Control and monitor inverters via CC-Link/CC-Link IE Field Network (option interface).

Product Specifications

Inverter capacity	200V class: 0.4kW to 90kW, 400V class: 0.4kW to 500kW
Control method	High-carrier frequency PWM control (Select from V/F, advanced magnetic flux vector, real sensorless vector or PM sensorless vector control), vector control (when using options)
Output frequency range	0.2 to 590Hz (upper limit is 400Hz when using advanced magnetic flux vector control, real sensorless vector control, vector control or PM sensorless vector control)
Regenerative braking torque (Maximum allowable duty)	200V class: 0.4K to 1.5K (150% at 3%ED) 2.2K/3.7K (100% at 3%ED) 5.5K/7.5K (100% at 2%ED) 11K to 55K (20% continuous) 75K or more (10% continuous), 400V class: 0.4K to 7.5K (100% at 2%ED) 11K to 55K (20% continuous) 75K or more (10% continuous)
Starting torque	200% 0.3Hz (3.7K or less), 150% 0.3Hz (5.5K or more) (when using real sensorless vector, vector control)

FA Products

Sensor-less Servo

FR-E700EX Series, MM-GKR Series

Compact and high-function drive unit, low-inertial small capacity sensor-less PM motor

- ◎Use PM sensor-less vector control to control dedicated PM motors with high accuracy without an encoder.
- ◎High-accuracy speed control (speed fluctuation rate $\pm 0.05\%$) and positioning control are supported.
- ◎The dedicated PM motor (MM-GKR) is quiet as it has no cooling fan. The compact and lightweight unit also supports reduction gears.
- ◎The standard model supports RS-485 communication. CC-Link communication is supported with an additional option.



Product Specifications

Drive unit / motor capacity	200V class: 0.1kW to 0.75kW
Control method	PM sensor-less vector control (low speed range: high frequency superimposition control)
Rated speed	3000r/min
Speed fluctuation rate	$\pm 0.05\%$ (at 0 to 100% load fluctuation)
Position control	The point table method and zero point return enable position control with absolute position commands
Command input method	$\pm 1.8^\circ$ (machine angle: equivalent to 200 [pulses/rev] resolution, input voltage 200V, wiring length within 5m)
Positioning accuracy	
Starting torque	200% (default value)
Communication specifications	Built-in: RS-485 communication (Mitsubishi inverter protocol, Modbus-RTU protocol), option: CC-Link communication

Three-Phase Motor

High Performance Energy-Saving Motor

Super Line Premium Series

SF-PR

Premium Efficiency & Compatible. New Launch of Super Line Premium Series SF-PR Model

- ◎Compared to general-purpose motor SF-JR model, generated loss is reduced by 37% on average, and it is compatible with highly efficient premium IE3.
- ◎Easy replacement is achieved as mounting dimension (frame number) is compatible with general-purpose motor SF-JR model.
- ◎One motor can accommodate different power sources of Japan and the U.S. Three ratings in Japan meet the Top Runner standards, while it corresponds to EISA in the U.S.
- ◎Can be driven by inverters as standard. Advanced magnetic-flux vector control by our FR-A800/700 achieves steady torque drive up to 0.5Hz.



Product Specifications

Number of poles	2-poles, 4-poles, 6-poles
Voltage·Frequency	200/200/220/230V 50/60/60/60Hz EISA 230V 60Hz or 400/400/440/460V 50/60/60/60Hz EISA 460V 60Hz
Exterior	Totally enclosed fan cooled type (inside, outside installation)
Protection system	IP44
Electrically-driven power system	Motor with 2-poles over 11kW is dedicated for a direct connection. Motors with 4-poles and 6-poles are for both direct and crossed belt connections.
Rotation direction	Counter-clock-wise (CCW) direction viewed from the edge of axis.
Compatible standard	JEC-2137-2000 (Efficiency is compatible with IEC 60034-30.)

Robot

MELFA F Series

High speed, high precision and high reliability industrial robot

- ◎Compact body and slim arm design, allowing operating area to be expanded and load capacity increased.
- ◎The fastest in its class using high performance motors and unique driver control technology.
- ◎Improved flexibility for robot layout design considerations.
- ◎Optimal motor control tuning set automatically based on operating position, posture, and load conditions.



Product Specifications

Degrees of freedom	Vertical:6 Horizontal:4
Installation	Vertical:Floor-mount, ceiling mount, wall mount (Range of motion for J1 is limited) Horizontal:Floor-mount
Maximum load capacity	Vertical:2-20kg Horizontal:3-20kg
Maximum reach radius	Vertical:504-1503mm Horizontal:350-1,000mm

Magnetic Starter

MS-T Series



Exceed your expectations.

- ◎10A frame model is over 16% smaller with a width of just 36mm!!
- ◎New integrated terminal covers.
- ◎Reduce your coil inventory by up to 50%.
- ◎Be certified to the highest international levels while work is ongoing to gain other country.

Product specifications

Frame	10 A to 32 A
Applicable standards	Certification to various standards including IEC, JIS, CE, UL, TÜV, CCC.
Terminal cover	Standard terminal cover improves safety, simplifies ordering, and reduces inventory, etc.
Improved wiring	Wiring and operability are improved with streamlining wiring terminal BC specifications.
Operation coil rating	Wide range of operation coil ratings reduces number of coil types from 14 (N Series) to 7 types and simplifies selection.
Option units	Diverse lineup includes Auxiliary Contact Block, Operation Coil Surge Absorber Unit, Mechanical Interlock Unit.

Low Voltage Circuit Breakers

Mitsubishi WS-V Series Molded Case Circuit Breakers, Earth Leakage Circuit Breakers



Technologies based on long year experience realize more improved performance.

- ◎The new electronic circuit breakers can display various measurement items.
- ◎Improvement of breaking performance with new breaking technology “Expanded ISTAC”.
- ◎Compliance with global standard for panel and machine export.
- ◎Commoditization of internal accessories for shorter delivery time and stock reduction.

Product Specifications.

Frame	32-250A Frame
Applicable standard	Applicable to IEC, GB, UL, CSA, JIS and etc.
Expansion of UL listed product line-up	New line-up of 480VAC type with high breaking performance for SCCR requirement
Commoditization of internal accessories	Reduction of internal accessory types from 3 to 1
Commoditization for AC and DC circuit use	Common use of 32/63A frame in both AC and DC circuit
Compact size for easy to use	Thermal adjustable and electronic circuit breakers are same size as 250AF fixed type
Measuring Display Unit (MDU) breakers	MDU breakers measure, display and transmit energy date to realize energy management.

Low-voltage switch

Mitsubishi Motor Circuit Breaker MMP-T Series



Introducing a Motor Circuit Breaker from Mitsubishi Electric!

- ◎Design smaller panels by using the Motor Circuit Breaker, various options and MS-T Series Magnetic Contactor.
- ◎Prevent secondary damage with Motor Circuit Breaker and Magnetic Contactor combination.
- ◎Streamlined wiring terminal BC specifications (option) contribute to improving your productivity.
- ◎Supports your overseas business with compliance to various International Standards as well as the UL Type E/F combination.

Product specifications

Rated current	0.16 A to 32 A (15 types)
Applicable (compliant) standards	Standard product compliant with various International Standards including IEC, JIS, CCC, TÜV and UL (certified)
Wiring types	Bare wire, rod terminal, Y crimp and round crimp supported
Improvement of wiring	Wiring and operability are improved with connection conductor unit and streamlined wiring terminal BC specifications (option)
Optional units	Auxiliary/Alarm Contact Unit, Short-Circuit Indicator Unit, Line Side Terminal Adapter, Connection Conductor Unit, etc., available
DIN rail mounting	Standard product mountable on rail
Finger protection support	Standard product compliant with IP20 from front side of terminals
Application in North America	Type E/F combination certification acquired. Compatible up to maximum SCCR value 50 kA

FA Products

CNC | Mitsubishi Numerical Control Unit C70 Series

iQ Platform compatible CNC to provide TCO reduction effect.

- ◎A CNC structured in building block method on iQ Platform.
- ◎High performance CNC integrated with high-speed PLC offers high-speed control to reduce cycle time.
- ◎A wide variety of FA products helps construct flexible lines.



Product specifications

Maximum number of control axes (NC axis + spindle + PLC axis)	16 axes
Maximum number of part system	Machining center system: 7 systems, Lathe system: 3 systems
Maximum number of NC axes per part system	8 axes
Maximum program capacity	2,000 KB (5,120 m)
Maximum number of files to store	124 files/252 files
Number of input/output points	4,096 points
Safety observation function	Safety signal comparison function, speed monitoring function, duplexed emergency stop

EDM | Wire EDM MV1200R

Next-generation Innovations of our best selling Performance Machine.

- ◎Total running cost reduced up to 42%, which is accounted for 90% by filter, ion exchange resin and power consumption.
- ◎Improved productivity by an innovative automatic wire threading.
- ◎Faster machining is realized with improved power-supply performance.
(Rz3. 5μm/Ra0. 45μm with 3cuts) (Rz2. 0μm/Ra0. 28μm with 4cuts)



Product Specifications

Model	MV1200R
Machining travel (X×Y×Z)[mm] (in)	400(15.7)×300(11.8)×220(8.7)(XY axis OPT-drive specifications)
Machining travel (U×V)[mm] (in)	±60(2.4)×±60(2.4)(OPT-drive specifications)
Max. taper angle [°]	15° (maximum 200mm)(7.9°)
Max. workpiece dimensions [mm] (in)	810(31.9)×700(27.6)×215(8.5)
Wire diameter [mm] (in)	0.1(.004) to 0.3(.012)*1
Dielectric fluid	Water
Footprint (W×D)[mm] (in)	2025(79.7)×2760(108.7)

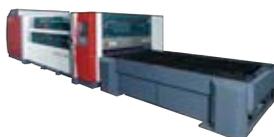
*1: Φ0.2(0.08) DD guides and Φ1.5(0.06) jet nozzle are standard equipment.

Laser Processing Machine | CO₂ 2-Dimensional Laser Processing Machine eX-Series

A global standard CO₂ 2-dimensional laser processing systems.

- ◎Productivity has been dramatically enhanced owing to improved acceleration and the latest control technologies exclusive to Mitsubishi Electric.
- ◎2 Action Cutting allows for the entire process, from job setup to parts cutting, to be completed in two simple actions.
- ◎When not processing, the system switches to ECO mode and the resonator stops idling. Minimizes energy consumption, reducing running costs by up to 99%*1 during standby.

*1: Compared to the previous LV-Series with Mitsubishi's designated benchmark shape.



Product specifications

Model Name	ML3015eX
Drive system	Flying optic (3-axis beam movement)
Stroke (X×Y×X) [mm]	3100×1565×150
Rapid feedrate [m/min]	X,Y axes: Max. 100; Z-axis: Max. 65
Processing feedrate [m/min]	Max. 50
Positioning accuracy [mm]	0.05 / 500 (X,Y axes)
Repeat accuracy [mm]	± 0.01 (X,Y axes)
Rated output [W]	4500

Mitsubishi's products comply with various standards and laws.

Mitsubishi's products also comply with various safety standards including UL standards, shipping standards, and radio laws.

<Safety Standards>

Mark	Standards/Agency	Country/Region
CE	EN Standards	Europe
UL	UL Standards	United States
cUL	Canadian Standards Association (CSA)	Canada

<Radio Laws>

Mark	Law	Country
KC	Korea Radio Waves Act	Korea

For the details on the approval model within each standards, please contact your local sales office.

<Shipping Standards> To be obtained soon

Abbrev.	Certification Organization	Country
ABS	American Bureau of Shipping	United States
BV	Bureau Veritas	France
DNV	Det Norske Veritas	Norway
GL	Germanischer Lloyd	Germany
LR	Lloyd's Register	England
NK	NIPPON KAIJI KYOKAI	Japan
RINA	Registro Italiano Navale	Italy

The release date varies depending on the product and your region. For details, please contact your local sales office.

MELDAS, MELSEC, iQ Platform, MELSOFT, GOT, CC-Link, CC-Link/LT, CC-Link IE are either trademarks or registered trademarks of Mitsubishi Electric Corporation in Japan and other countries.
 Microsoft, Windows, Windows Vista, Windows Server, Excel, Visual Basic, Visual C++, Visual Studio, Access, SQL Server are registered trademarks or trademarks of Microsoft Corporation in the United States, Japan and other countries.
 ETHERNET is a registered trademark of Xerox Corp.
 MODBUS is a registered trademark of SCHNEIDER ELECTRIC USA, INC.
 SD and SDHC Logos are registered trademarks or trademarks of SD-3C, LLC.
 VNC is a registered trademark of RealVNC Ltd. in the United States and other countries.
 Unicode and the Unicode Logo are registered trademarks of Unicode, Inc. in the United States and other countries.
 Oracle is a registered trademark of Oracle Corporation and/or its affiliates in the United States and other countries.
 PictBridge is a registered trademark of Canon Inc.
 Android is a registered trademark or trademark of Google Inc.
 PocketCloud is a registered trademark or trademark of Wyse Technology Inc.
 Other product and company names are either trademarks or registered trademarks of their respective owners.

The actual color may differ slightly from the pictures in this catalog.
 The actual display may differ from what are shown on GOT screen images.

Precautions before use

This publication explains the typical features and functions of the products herein and does not provide restrictions or other information related to usage and module combinations. Before using the products, always read the product user manuals. Mitsubishi Electric will not be held liable for damage caused by factors found not to be the cause of Mitsubishi Electric; opportunity loss or lost profits caused by faults in Mitsubishi Electric products; damage, secondary damage, or accident compensation, whether foreseeable or not, caused by special factors; damage to products other than Mitsubishi Electric products; or any other duties.

For safe use

- To use the products given in this publication properly, always read the relevant manuals before beginning operation.
- The products have been manufactured as general-purpose parts for general industries, and are not designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the products for special purposes such as nuclear power, electric power, aerospace, medicine or passenger-carrying vehicles, consult with Mitsubishi Electric.
- The products have been manufactured under strict quality control. However, when installing the products where major accidents or losses could occur if the products fail, install appropriate backup or fail-safe functions in the system.

Mitsubishi Graphic Operation Terminal GOT2000 Series

Country/Region	Sales office	Tel/Fax
USA	MITSUBISHI ELECTRIC AUTOMATION, INC. 500 Corporate Woods Parkway, Vernon Hills, IL 60061, U.S.A.	Tel: +1-847-478-2100 Fax: +1-847-478-2253
Brazil	MITSUBISHI ELECTRIC DO BRASIL COMÉRCIO E SERVIÇOS LTDA. Rua Jussara, 1750- Bloco B Anexo, Jardim Santa Cecilia, CEP 06465-070, Barueri - SP, Brasil	Tel: +55-11-4689-3000 Fax: +55-11-4689-3016
Mexico	MITSUBISHI ELECTRIC AUTOMATION, INC. Mexico Branch Mariano Escobedo #69, Col.Zona Industrial, Tlalnepantla Edo, C.P.54030, Mexico	Tel: +52-55-3067-7500 Fax: -
Germany	MITSUBISHI ELECTRIC EUROPE B.V. German Branch Gothaer Strasse 8, D-40880 Ratingen, Germany	Tel: +49-2102-486-0 Fax: +49-2102-486-1120
UK	MITSUBISHI ELECTRIC EUROPE B.V. UK Branch Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, U.K.	Tel: +44-1707-28-8780 Fax: +44-1707-27-8695
Italy	MITSUBISHI ELECTRIC EUROPE B.V. Italian Branch Centro Direzionale Colleoni - Palazzo Sirio Viale Colleoni 7, 20864 Agrate Brianza (Milano), Italy	Tel: +39-039-60531 Fax: +39-039-6053-312
Spain	MITSUBISHI ELECTRIC EUROPE B.V. Spanish Branch Carretera de Rubí 76-80-Apdo.420, 08173 Sant Cugat del Vallés (Barcelona), Spain	Tel: +34-935-65-3131 Fax: +34-935-89-1579
France	MITSUBISHI ELECTRIC EUROPE B.V. French Branch 25, Boulevard des Bouvets, F-92741 Nanterre Cedex, France	Tel: +33-1-55-68-55-68 Fax: +33-1-55-68-57-57
Czech	MITSUBISHI ELECTRIC EUROPE B.V. Czech Branch Avenir Business Park, Radlicka 751/113e, 158 00 Praha5, Czech Republic	Tel: +420-251-551-470 Fax: +420-251-551-471
Turkey	MITSUBISHI ELECTRIC TURKEY A.S. Umraniye Branch Serifalli Mahallesi Nutuk Sokak No:5, TR-34775 Umraniye, Istanbul, Turkey	Tel: +90-216-526-3990 Fax: +90-216-526-3995
Poland	MITSUBISHI ELECTRIC EUROPE B.V. Polish Branch ul. Krakowska 50, 32-083 Balice, Poland	Tel: +48-12-630-47-00 Fax: +48-12-630-47-01
Russia	MITSUBISHI ELECTRIC EUROPE B.V. Russian Branch St. Petersburg Office Piskarevsky pr. 2, bld 2, lit "Sch", BC "Benua", office 720; RU-195027 St. Petersburg, Russia	Tel: +7-812-633-3497 Fax: +7-812-633-3499
South Africa	Adroit Technologies 20 Waterford Office Park, 189 Witkoppen Road, Fourways, Johannesburg, South Africa	Tel: +27-11-658-8100 Fax: +27-11-658-8101
China	MITSUBISHI ELECTRIC AUTOMATION (CHINA) LTD. No.1386 Hongqiao Road, Mitsubishi Electric Automation Center, Shanghai, China	Tel: +86-21-2322-3030 Fax: +86-21-2322-3000
Taiwan	SETSUYO ENTERPRISE CO., LTD. 6F, No.105, Wugong 3rd Road, Wugu District, New Taipei City 24889, Taiwan, R.O.C.	Tel: +886-2-2299-2499 Fax: +886-2-2299-2509
Korea	MITSUBISHI ELECTRIC AUTOMATION KOREA CO., LTD. 7F-9F, Gangseo Hangang Xi-tower A, 401, Yangcheon-ro, Gangseo-Gu, Seoul 157-801, Korea	Tel: +82-2-3660-9530 Fax: +82-2-3664-8372/8335
Singapore	MITSUBISHI ELECTRIC ASIA PTE. LTD. 307, Alexandra Road, Mitsubishi Electric Building, Singapore 159943	Tel: +65-6473-2308 Fax: +65-6476-7439
Thailand	MITSUBISHI ELECTRIC FACTORY AUTOMATION (THAILAND) CO., LTD. 12th Floor, SV.City Building, Office Tower 1, No. 896/19 and 20 Rama 3 Road, Kwaeng Bangpongpan, Khet Yannawa, Bangkok 10120, Thailand	Tel: +66-2682-6522 to 31 Fax: +66-2682-6020
Indonesia	PT. MITSUBISHI ELECTRIC INDONESIA Gedung Jaya 11th Floor, JL. MH. Thamrin No.12, Jakarta Pusat 10340, Indonesia	Tel: +62-21-3192-6461 Fax: +62-21-3192-3942
Vietnam	MITSUBISHI ELECTRIC VIETNAM COMPANY LIMITED Unit 01-04, 10th Floor, Vincom Center, 72 Le Thanh Ton Street, District 1, Ho Chi Minh City, Vietnam	Tel: +84-8-3910-5945 Fax: +84-8-3910-5947
India	MITSUBISHI ELECTRIC INDIA PVT. LTD. Pune Branch Emerald House, EL -3, J Block, M.I.D.C Bhosari, Pune - 411026, Maharashtra, India	Tel: +91-20-2710-2000 Fax: +91-20-2710-2100
Australia	MITSUBISHI ELECTRIC AUSTRALIA PTY. LTD. 348 Victoria Road, P.O. Box 11, Rydalmere, N.S.W. 2116, Australia	Tel: +61-2-9684-7777 Fax: +61-2-9684-7245

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).



MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
NAGOYA WORKS: 1-14, YADA-MINAMI 5, HIGASHI-KU, NAGOYA, JAPAN

When exported from Japan, this manual does not require application to the Ministry of International Trade and Industry for service transaction permission.