MITSUBISHI ELECTRIC
Changes for the Better

Mitsubishi Graphic Operation Terminal
GOT1000 Series Application Catalog

Visualization changes control.

GRAPHIC OPERATION TERMINAL
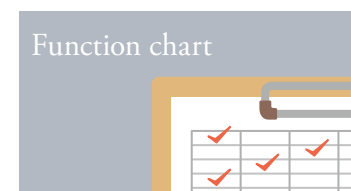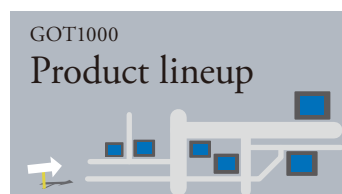# GOT1000

Empowering Industries

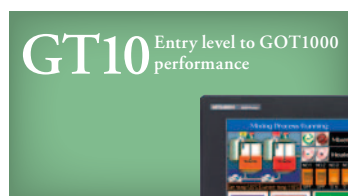# The GOT1000 delivers the competitive advantage:

The speed of your business and the speed of your machines hinges on many forces outside of your control. The GOT1000 brings them back under control with speed, performance and industry leading functions that are tailored for visualization - real life solutions for your real time processes. Whether your focus is centered on uptime, productivity or serviceability, there is a GOT solution that fits your machine, factory and enterprise level requirements.

GOTs change the face of control.

Index

GT10 Entry level to GOT1000 performance

Handy GOTs Mobility for your visualization

Specifications

The GOT1000 delivers the competitive advantage.

GOT1000 product lineup

GT16
All in one visualization and operation multi-tool

GT14
More than plain visualization

GT12
Visualization at its best

GT10
Entry level to GOT1000 performance

Handy GOT
GT16, GT11
Mobility for your visualization

	15-inch	12.1-inch	10.4-inch

GT1695M 2 types
1,024 x 768 dots
• 65,536 colors

GT1685M 2 types
800 x 600 dots
• 65,536 colors

GT167[ ] 8 types
800 x 600 dots
• 65,536 colors

640 x 480 dots
• 65,536 colors
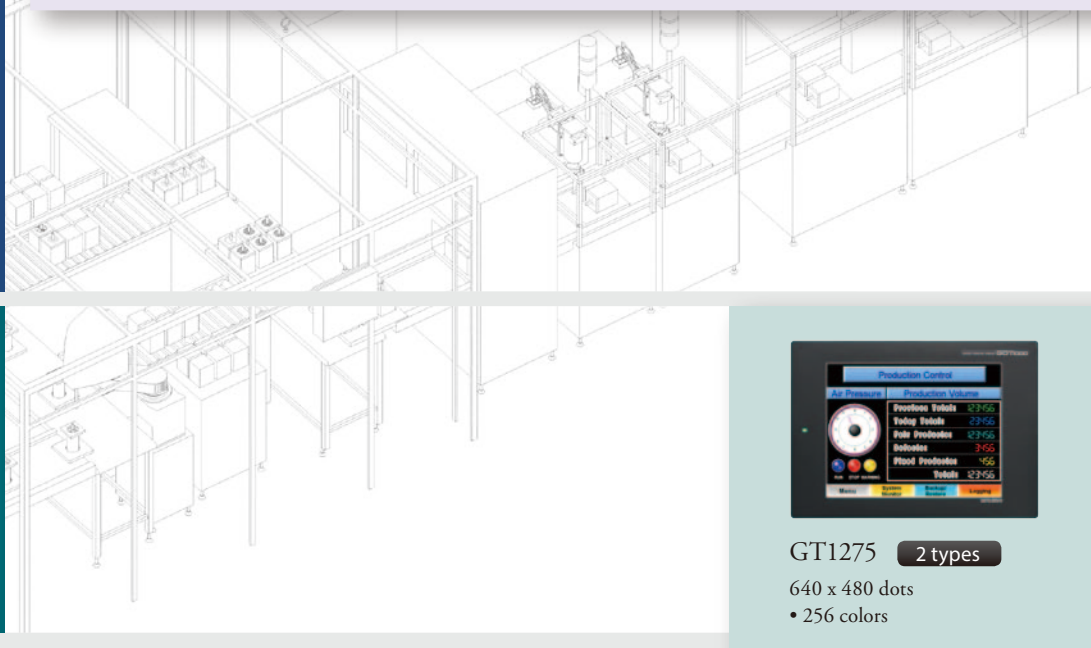• 4,096 colors
• 16 colors

GT1275 2 types
640 x 480 dots
• 256 colors

	6.5-inch	5.7-inch

GT1665HS 1 type
640 x 480 dots
• 65,536 colors

GT115[ ]HS 2 types
320 x 240 dots
• 256 colors
• 16 gray scales

GT166[ ] `6 types`

800 x 600 dots   640 x 480 dots
• 65,536 colors   • 65,536 colors
                  • 16 colors

GT1655 `1 type`

640 x 480 dots
• 65,536 colors

GT145[ ] `2 types`

320 x 240 dots
• 65,536 color
• 16 gray scales

GT1265 `2 types`

640 x 480 dots
• 256 colors

GT105[ ] `2 types`

320 x 240 dots
• 256 colors
• 16 scales blue/white
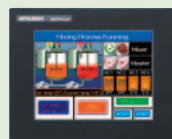
GT104[ ] `2 types`

320 x 240 dots
• 256 colors
• 16 scales blue/white

GT1030 `12 types`

288 x 96 dots
• 3 colors backlight
• Monochrome

GT1020 `12 types`

160 x 64 dots
• 3 colors backlight
• Monochrome

The GOT1000 series offers four classes of terminals to fit any system or budget requirement.

Note: Please refer to the following Specifications on page 24 for more information such as type names.

GT16

All in one visualization and operation multi-tool

GT16 model features

GT1695M, GT1685M, GT167[ ], GT166[ ], GT1655

Display
- XGA 1,024 x 768 / SVGA 800 x 600 / VGA 640 x 480
- TFT 65,536 colors / 4,096 colors / 16 colors
- Featuring an analog touch panel

Function
- Human sensor (Only GT1695M / GT1685M)
- User memory capacity: 15MB (GT16[ ][ ]-VNB[ ]: 11MB)
- Backup/restore function and logging function
- USB host and USB device ports are included.
- CF card support
- Ethernet, RS-422, RS-485, and RS-232 interfaces
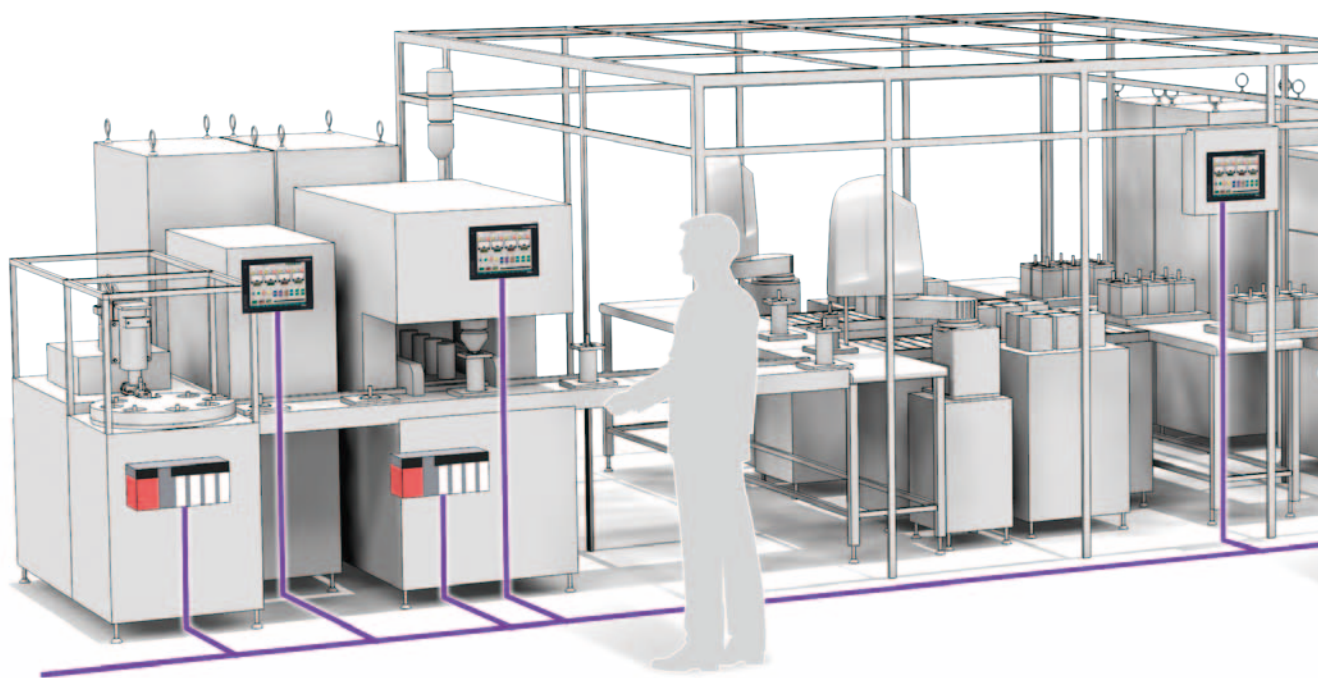
Option units
- Extension unit for communication unit and other optional unit
  (Multi-Media unit, Video/RGB input unit, and Audio output unit, External I/O unit, Printer Unit, and CF Card unit etc.)

One touch ladder jump

By setting a program name and coil number of the PLC (Q/L/QnA series, CNC C70) to a touch switch, the relevant ladder circuit block can be displayed directly.
The additional search function for contact points and coils greatly improves use of the ladder monitoring function.

Document display, Video Display

Documents (Supported file formats: doc, xls, ppt, pdf, jpg, and bmp) and user videos can be stored on the CF card. Additional user advice like maintenance instructions can be conveniently displayed for advanced guidance.

Display the ladder block of the coil set to the touch switch

One touch to jump to Ladder Monitor or Ladder Editor Screen

Directly assign documents and image files to touch switches.

Video displays the operation method intelligibly.

The manual describes how to deal with the error displayed.

Human sensor (Only GT1695M, GT1685M)

CF card slot

Extension unit
connection port

RS-232

Ethernet

RS-422/485

USB host and USB device
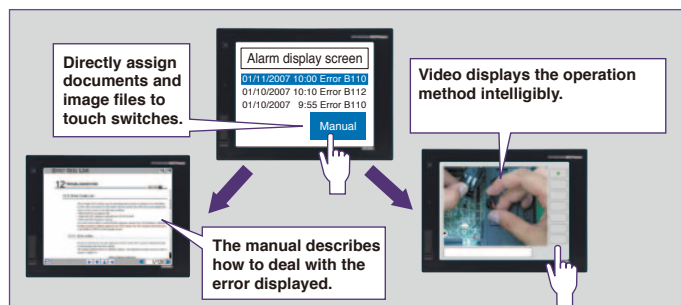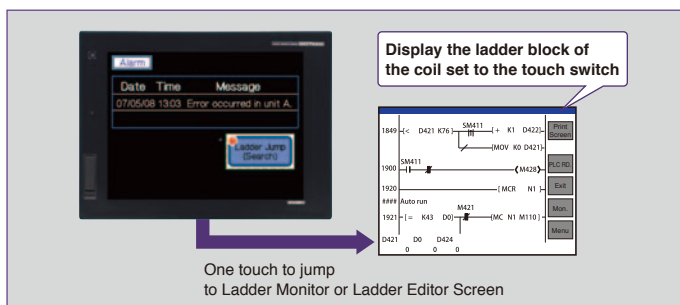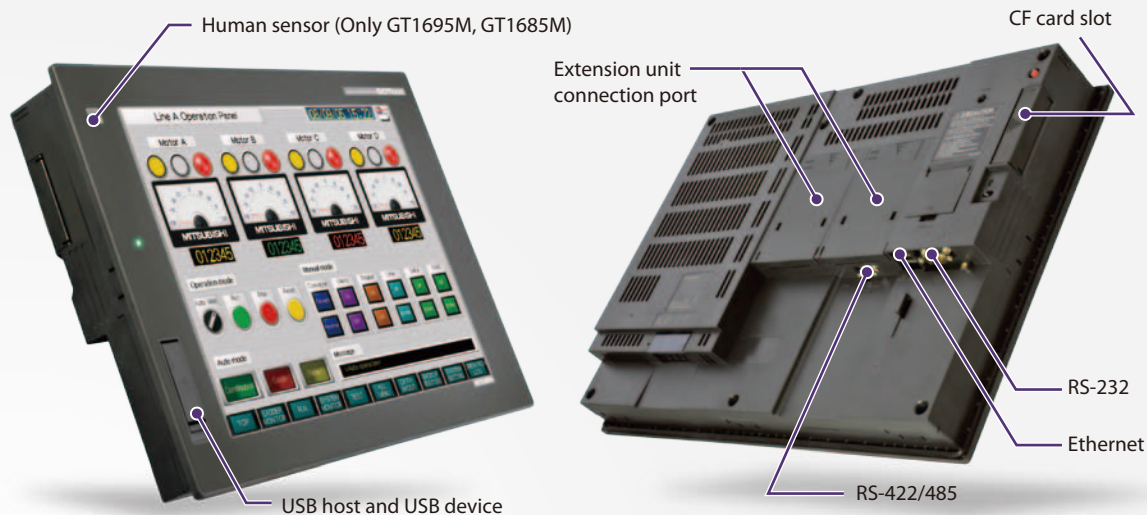
GT1695M Interface example

Ethernet

CC-Link **IE** **F**ield
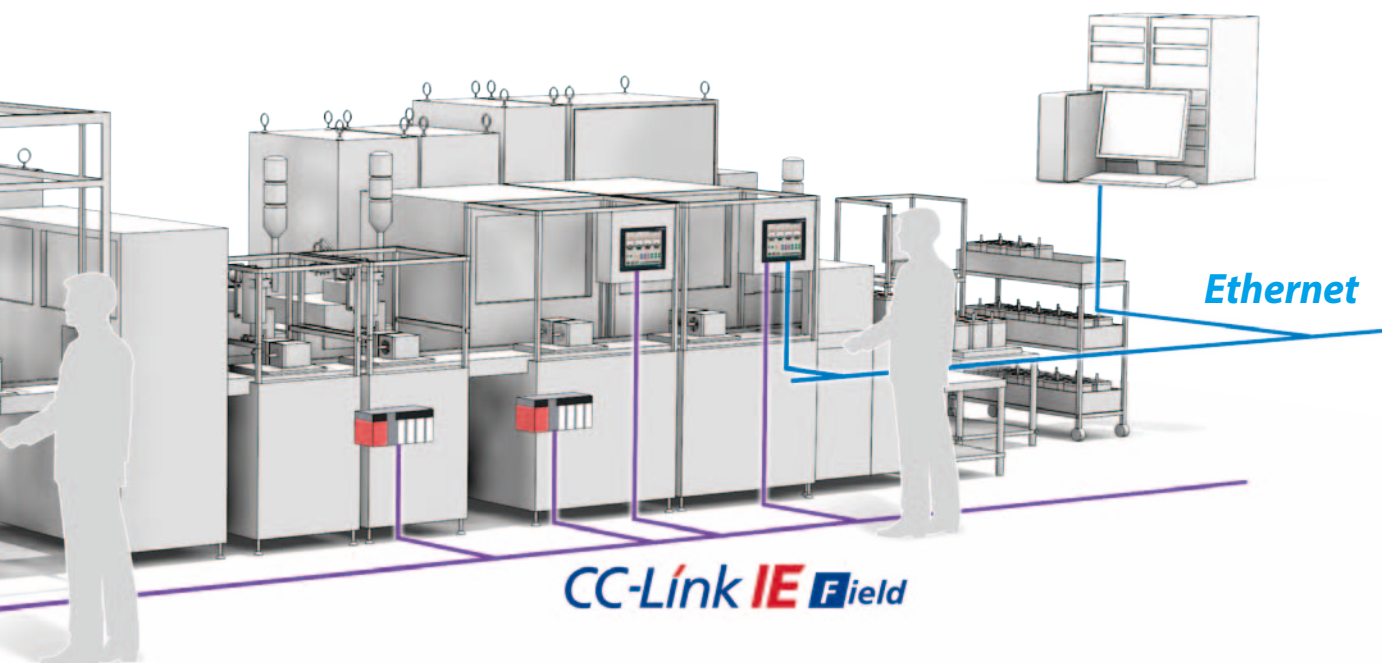
MES connection

The GOT promotes Gateway PC free connection to various databases by transmitting data from connected FA devices directly to databases via SQL statements.
The MES connection is conveniently setup in GT Works3 without any special programming.
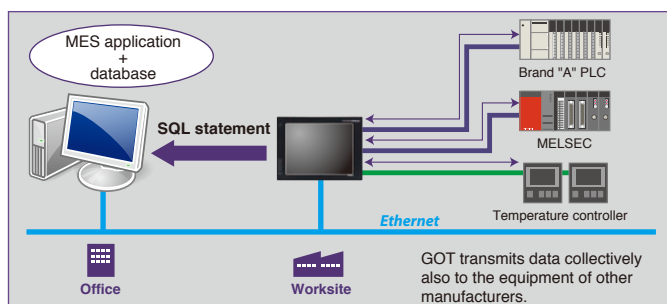
Video capture and play back videos

Connect up to 4 cameras or inspection devices. Images are displayed crisp and clear and can also be stored in JPEG format.
Capable of recording motion images for 120 seconds before and after an event, for example triggered by an alarm, provides direct video information about the situation before and after a failure occurrence.
(Optional multimedia unit or video/RGB input unit is necessary.)

MES application
+
database

Brand "A" PLC

SQL statement

MELSEC

Temperature controller

Ethernet

Office

Worksite

GOT transmits data collectively also to the equipment of other manufacturers.

Error!

120 seconds before

Event trigger device: ON

120 seconds after

The GOT1000 delivers the competitive advantage.
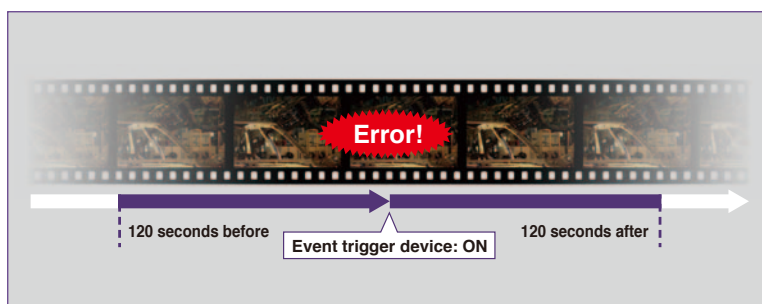
GT14

More than plain visualization

GT14 model features

GT1455

GT1450

Display
- QVGA 320 x 240
- TFT 65,536 colors / 16 gray scales
- Featuring an analog touch panel

Function
- User memory capacity: 9MB built-in
- Backup/restore function and logging function
- USB host and USB device ports are included.
- SD card support
- Ethernet, RS-422/485, and RS-232 interfaces
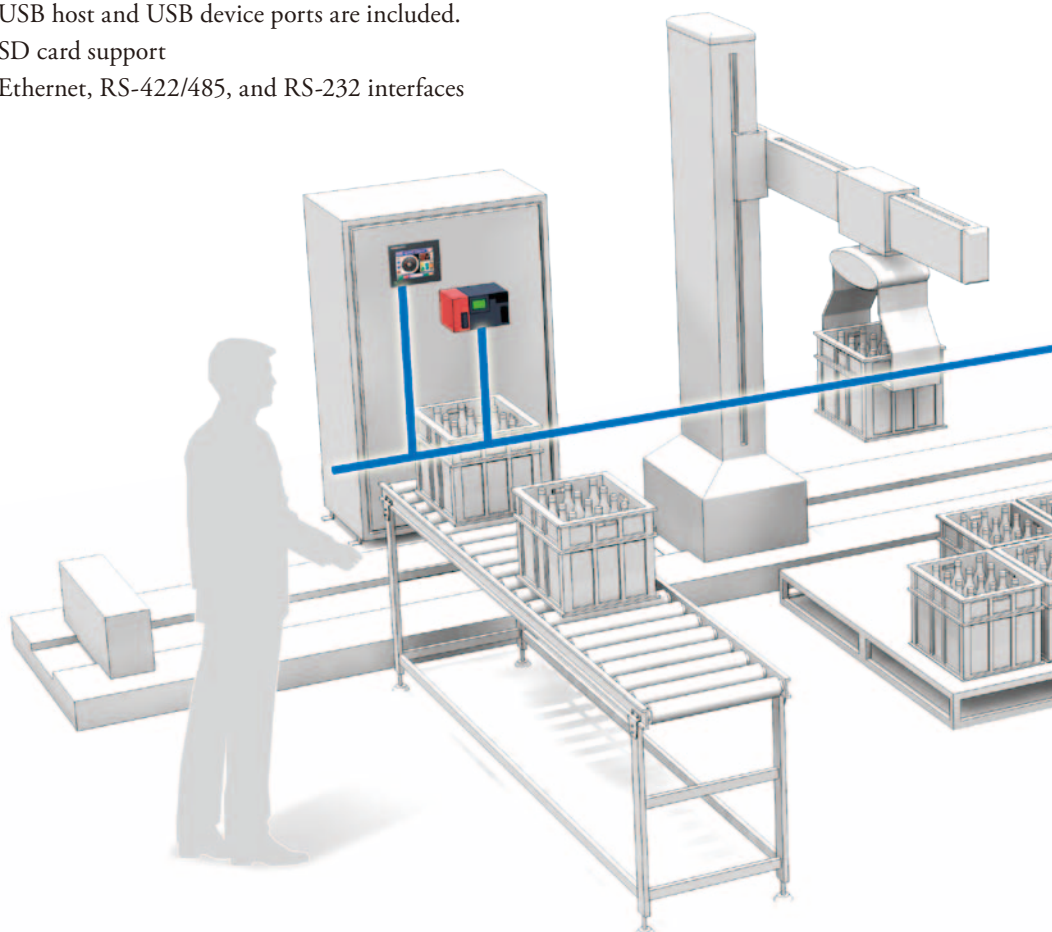
Back up Restore

The sequence program and parameter data of the PLC CPU and motion controller, etc. can be backed up to the SD card or USB memory in the GOT.
This is particularly helpful for quick replacement of faulty devices and restore the system using the backup data in case of a PLC failure, CPU failure, or dead battery.

Ethernet embedded

The Ethernet communication acts as a universal interface. Besides connection to PLCs, many functions are available when connected with a PC. For example, the FTP client function supports the transfer of logging data, alarm log files and hard copies to an FTP server enabled PC.

SD card,etc.

If data is backed up

Replace CPU   **Restore**

PLC

Sequence program, etc.

Personal computer (FTP server)

Office

Logging file, etc.

Alarm log file, hard copy, etc.

Ethernet

Worksite

SD card, etc.

GOT (FTP client)   GOT (FTP client)
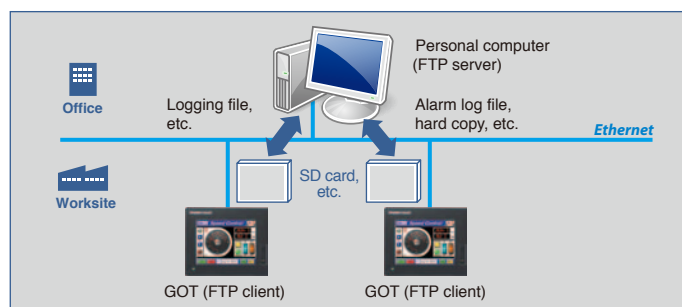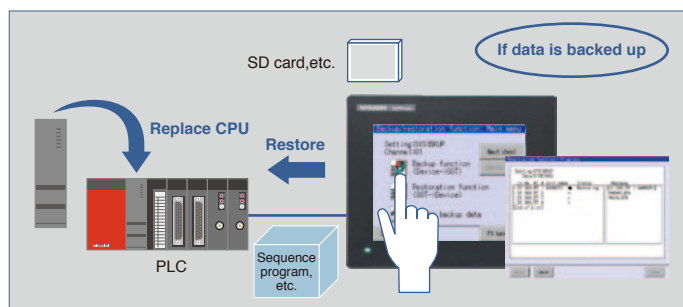
RS-422/485
RS-232
SD card slot
USB port(device)
USB port (host)
Ethernet
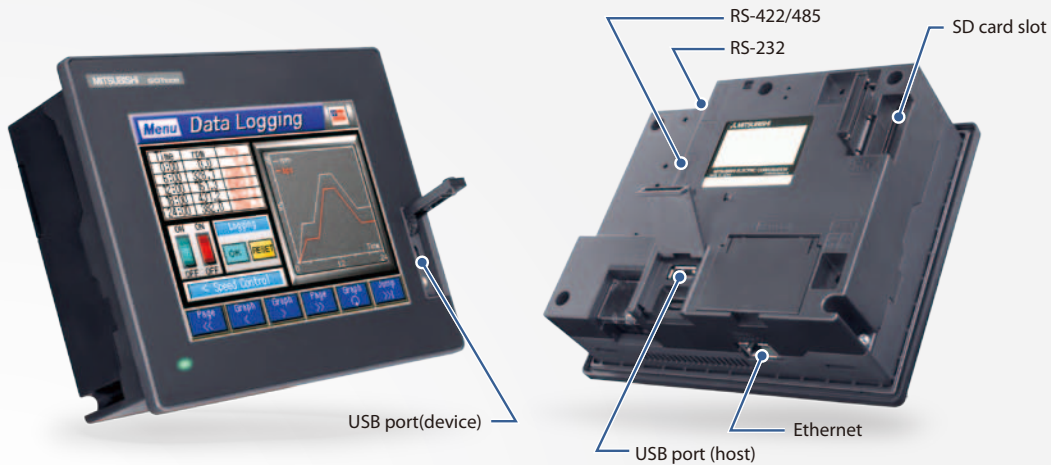
GT145[ ] Interface example

Ethernet
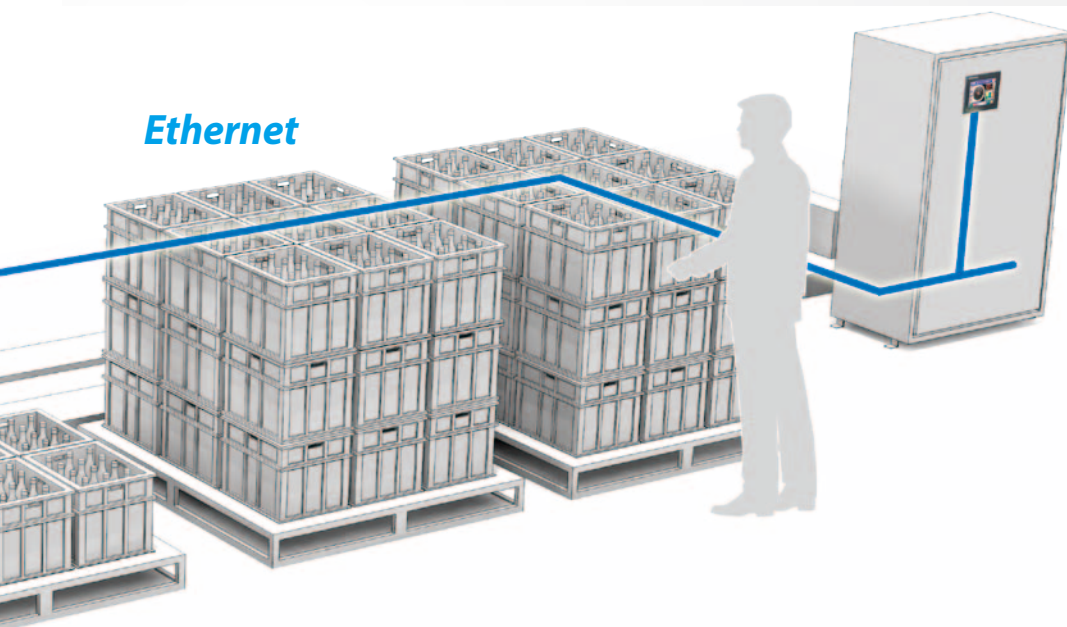
Front side USB

Connect via the front side USB device (Mini-B) port to the GOT. Thanks to the FA transparent function, you do not need to open the panel to transfer operating systems and project data of connected Mitsubishi FA products like PLC's, inverter or servos.

Direct CPU connection/
computer link connection/Ethernet connection

USB/RS-232

Modem
connection
Ethernet

Personal computer
with programming and
setup software

RS-422
connection

Direct CPU connection
Ethernet connection

Mitsubishi inverter

Mitsubishi PLC

MELSECNET/H
Ethernet etc.

SSCNETIII

Mitsubishi
servo amplifier

Easy access to distant PLCs!

SD card and USB host port

Operating systems, project data, and resource data can be stored on a USB memory device or SD card. The external memory is also useful for storing logging and project information or for transferring them to a PC. A USB mouse/keyboard can also be used by connecting to the USB host interface.

SD card   USB memory

or

Backup

Restore

PLC CPU
PLC program
file register

GOT
OS, Project, resouce,
Logging, Alarm,
Recipe

The GOT1000 delivers the competitive advantage.
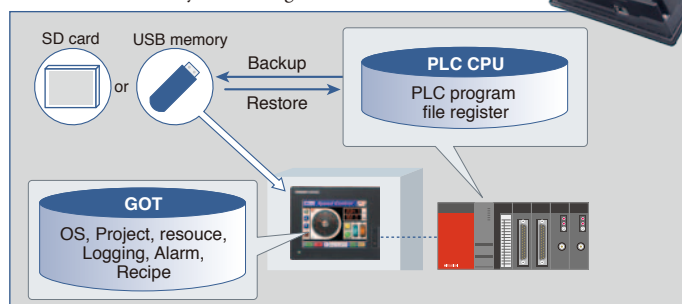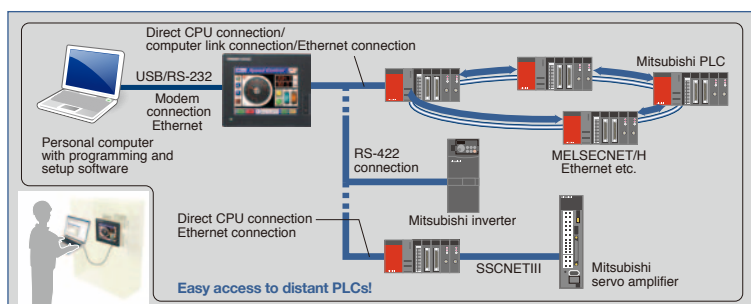
GT12 — Visualization at its best

GT12 model features

GT1275, GT1265

Display
- VGA 640 x 480
- TFT 256 colors
- Featuring an analog touch panel

Function
- User memory capacity: 6MB
- USB device port is included.
- CF card support
- Ethernet, RS-422/485, and RS-232 interfaces
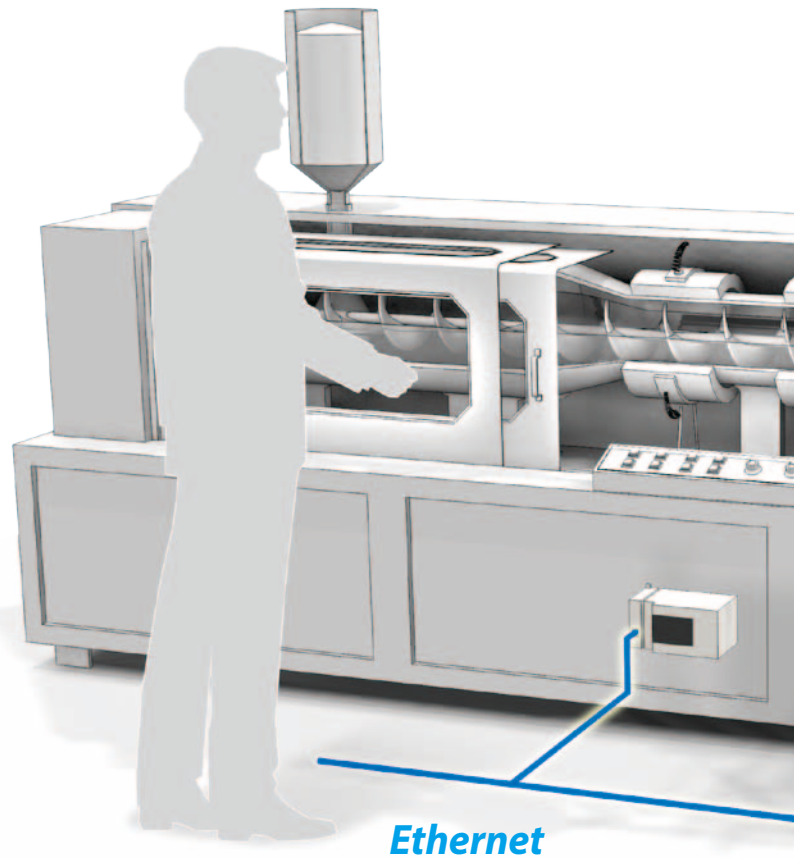
Ethernet

Analog touch panel

To make the best use of the GOT screen, an analog touch panel has been applied.
For maximum flexibility, touch buttons can be designed as small as 2 dots by 2 dots and placed freely on the screen.

Dual driver

Two channels allow for control of multiple external devices connected via Ethernet or serial communication. With the FA transparent function, even a PC can access these external devices.

2 dots — 2 dots

Factory · Office

PLC · GT12 · PLC

Serial · HUB · Ethernet · HUB

USB device   CF card slot
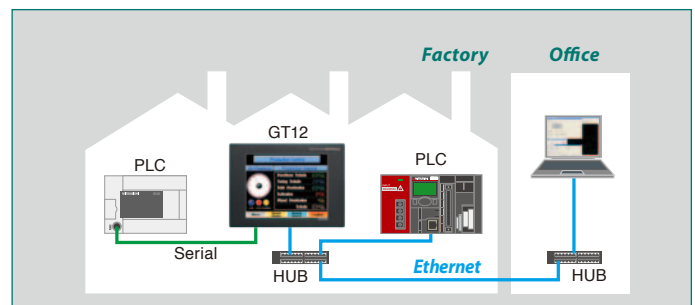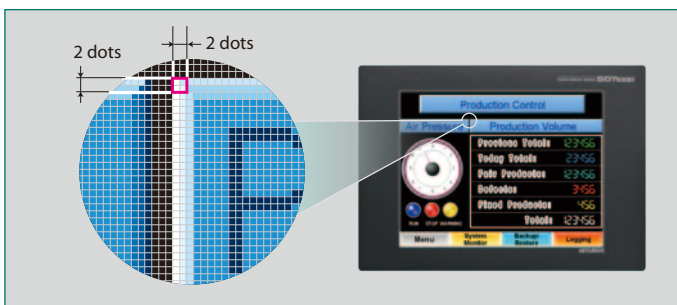
RS-232   RS-422/485   Ethernet
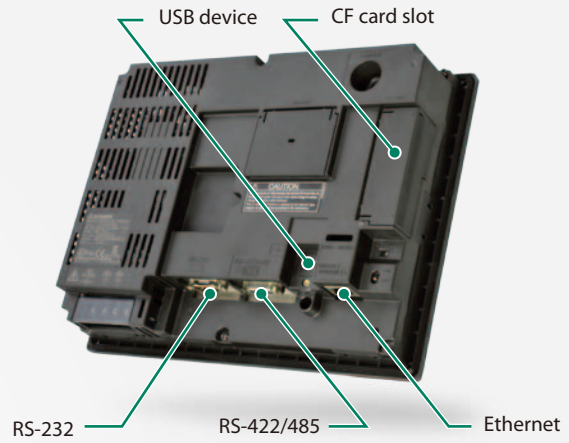
GT127[ ] Interface example
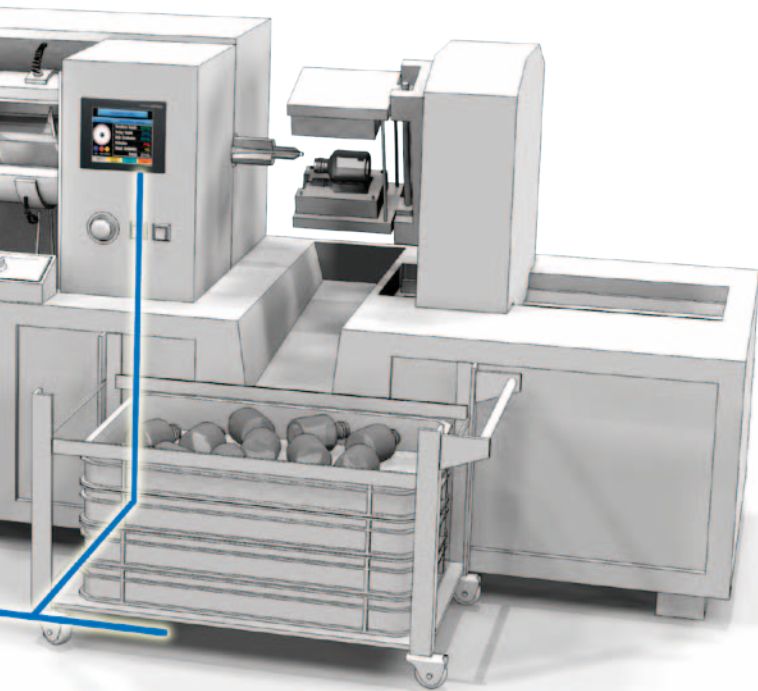
Data logging on CF card

Sample device data as quickly as every half second. Collect this information with the logging feature and save to a CF card, so you can later analyze the data on a PC.

Historical trend graph

Logged data can be viewed on the historical trend graph or historical data list, which is instantly populated with current and past data. Monitor the current situation or analyze past data in graph format.

CF card

Logging   Analyzing

Histrical trend graph   Histrical data list

The GOT1000 delivers the competitive advantage.
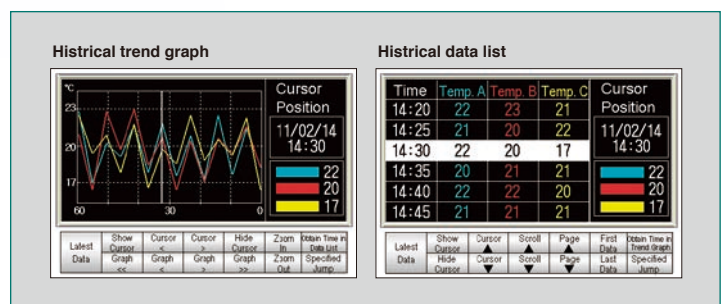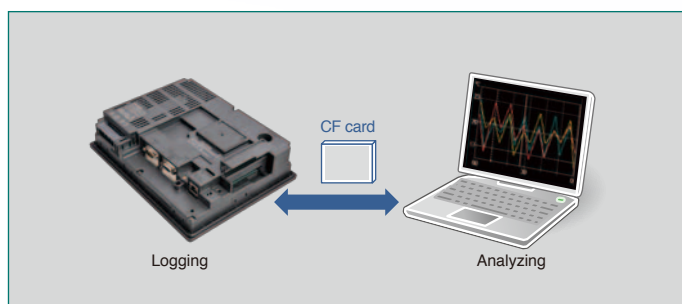
GT10

Entry level to GOT1000 performance

GT10 model features

GT1055, GT1050   GT1045, GT1040

Display
- QVGA 320 x 240
- STN 256 colors / 16 scales blue/white
- Matrix resistive type touch panel

Function
- User memory capacity: 3MB
- USB device port is included.
- Memory board interface
- RS-422/485 and RS-232 interfaces are supported as standard interfaces.

RS-422/485   RS-232

USB device

GT105[ ] Interface example
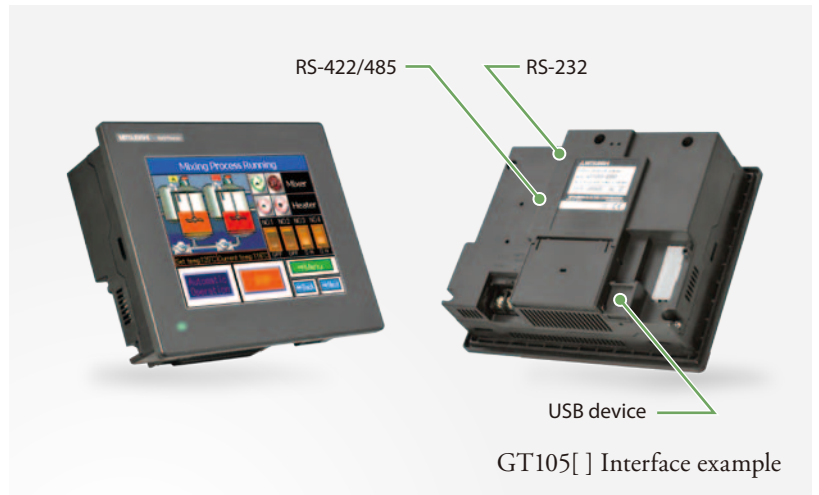
RS-422
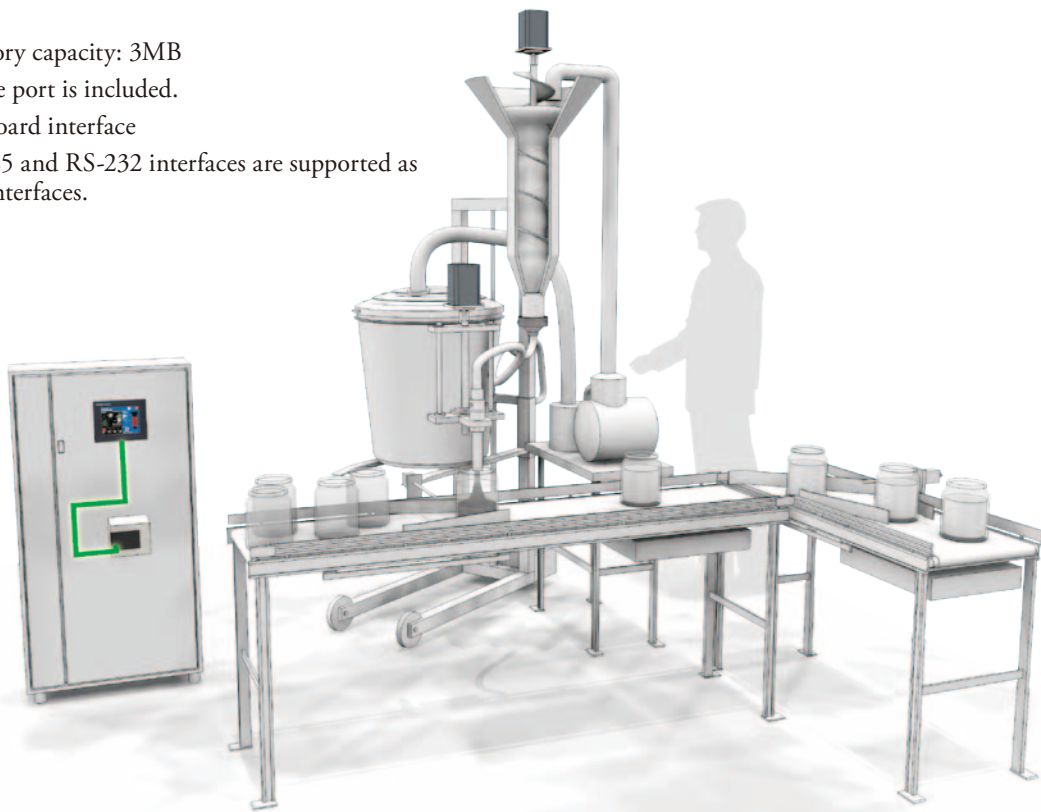
IP67F for worry free cleaning

Multi language for safe operation

By using comment groups, different language comments can be created for each comment group column to switch the display language. Up to 10 languages can be downloaded to the GOT for safe operation and global use.

Transparent mode

One of the integrated communication ports can be used in transparent mode to communicate with the Mitsubishi Electric FA equipment connected on another communication port via the GOT. Connection via modem is supported as well for cost efficient remote maintenance to both GOT and connected Mitsubishi Electric FA equipment.

GOTs are IP67f rated for protection against water, dust and oil. This is particularly important in food and beverage applications where frequent washing is common as well as machine tools or outdoor equipment.

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

If D10=1, Japanese is displayed   Switch   If D10=2, English is displayed   Switch   If D10=3, Korean is displayed

Using D10 as the language switching device

Communication port: 3 channels

RS-232(PLC or PC connection)

FX/L/Q series serial connection

Connection cable GT01-C30R2-9S

RS-422

Connection cable GT09-C30USB-5P(3m)

Transparent Function

GX Works2

Connected to the PLC via the GOT (USB or RS-232)

GT1030 **12 types**   GT1020 **12 types**

Display
- GT1030 288 x 96 / GT1020 160 x 64
- 3 colors backlight conveys equipment status at a glance.

Function
- 2 type color frame: black/white
- User memory capacity: 1.5MB on GT1030 / 512KB on GT1020
- The RS-422/485 interface or the RS-232 interface is supported as a standard interface.
- 5V DC power supply type with RS-422 interface (Only for FX PLC)

RS-422/485 or RS-232

RS-232

GT1030 Interface example

3 colors backlight screen

Backlight control via the connected PLC*.

Green/Orange/Red   White/Pink/Red
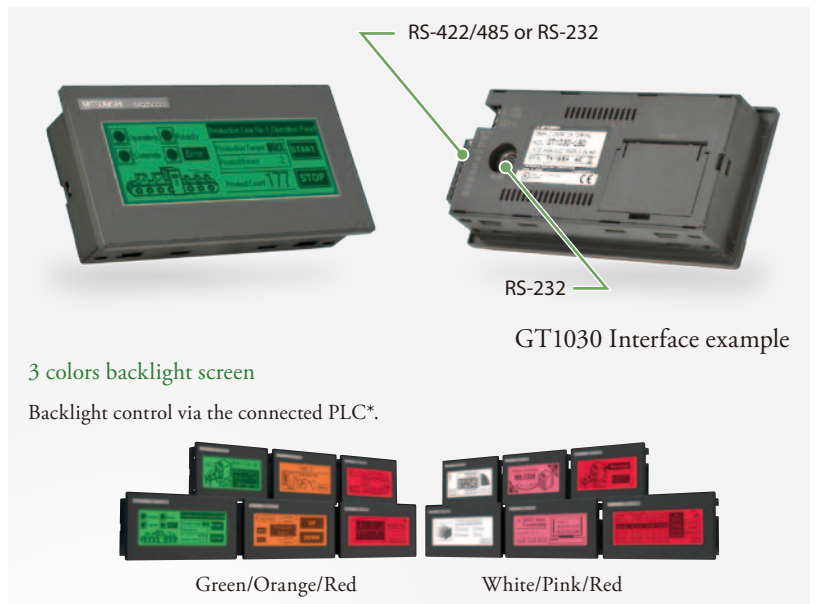
∗: Color switching and backlight setting to ON, OFF or flashing

RS-232

RS-422
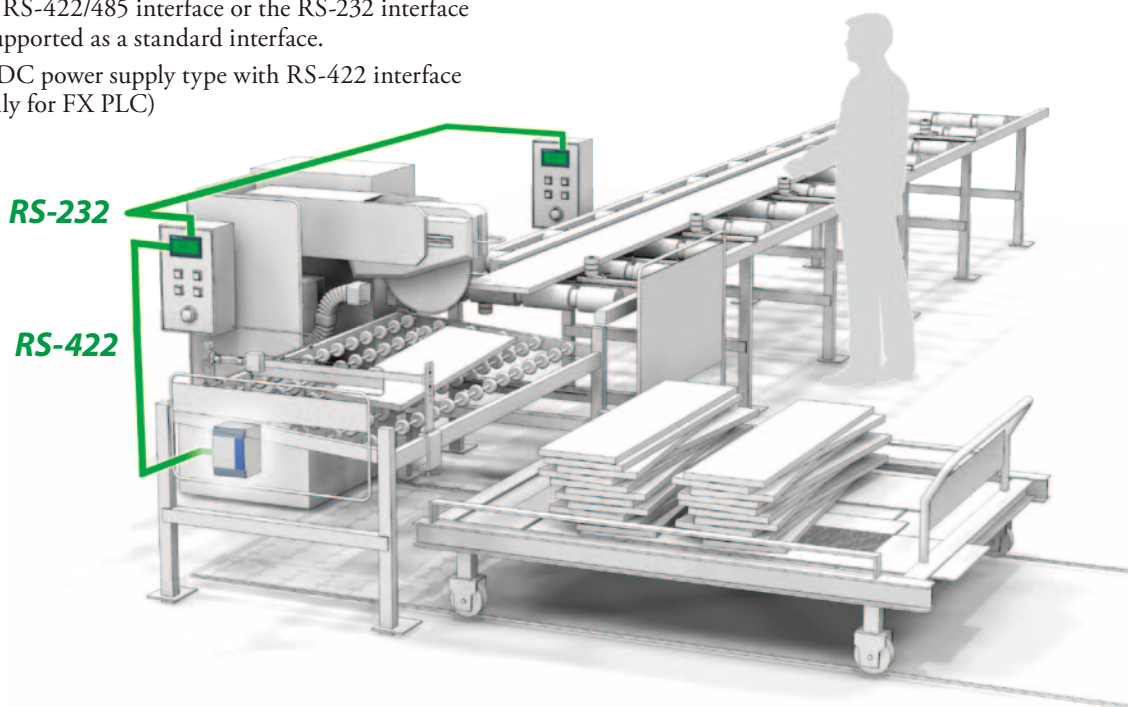
Multi GOT connection

Up to two GT10 units can be connected to one PLC unit even if the screen sizes differ, thus enabling greater flexibility with flexible terminal placement and additional cost savings.

FX/L/Q serial connection

RS-422 or RS-232 Connection type   RS-232 Connection type

RS-422 or RS-232   GT10-C30R2-6P
Maximum 30m   Maximum 15m   Maximum 3m
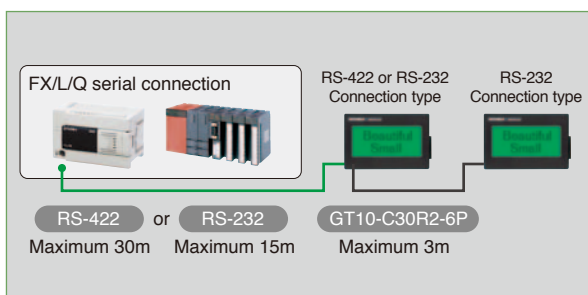
Recipe support

This function allows material combination data and processing condition data (device values) to be held in the GOT, with only required data being written to and read from the PLC. Recipe data is made with a user friendly setup using common PC software and then transferred to the GOT with GT Works3.

Recipe function

Read
Write

| Recipe 1 | Recipe 2 |
| Cut size : large | Cut size : small |

D0	2000	D0	1000
D1	5000	D1	2500
D2	6000	D2	3000
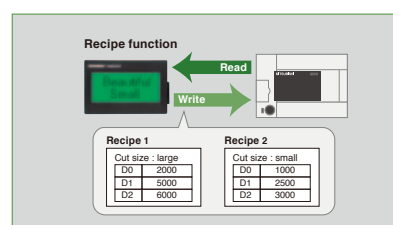
Program Loader
GT10-LDR

The compact GT10-LDR transfers the standard monitor OS, communication driver and project data to and from the GT1020 and GT1030. Simple switch type operation and robust design fits shop floor requirements perfectly.
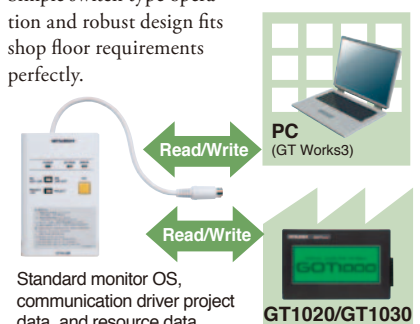
Read/Write

PC
(GT Works3)

Read/Write

Standard monitor OS, communication driver project data, and resource data

GT1020/GT1030

The GOT1000 delivers the competitive advantage.

13

Handy GOT
GT16

Mobility for your visualization

GT16 Handy model features

GT1665HS

Emergency stop switch
Key selector switch
USB host and USB device CF card slot
Hand strap
Grip switch
6 operation switches

1.2Kg (2.6lbs)

Display
- VGA 640 x 480
- TFT 65,536 colors
- Analog type touch panel

Function
- User memory capacity: 15MB
- CF card, USB host, and USB device ports are included.
- Ethernet, RS-422/485, and RS-232 interfaces are supported as standard interfaces.
- The latest GT16 functions are available, including various types of monitoring and ladder editing functions.

Ethernet

Intelligent connector box with safety support

Light weight and intuitive operation
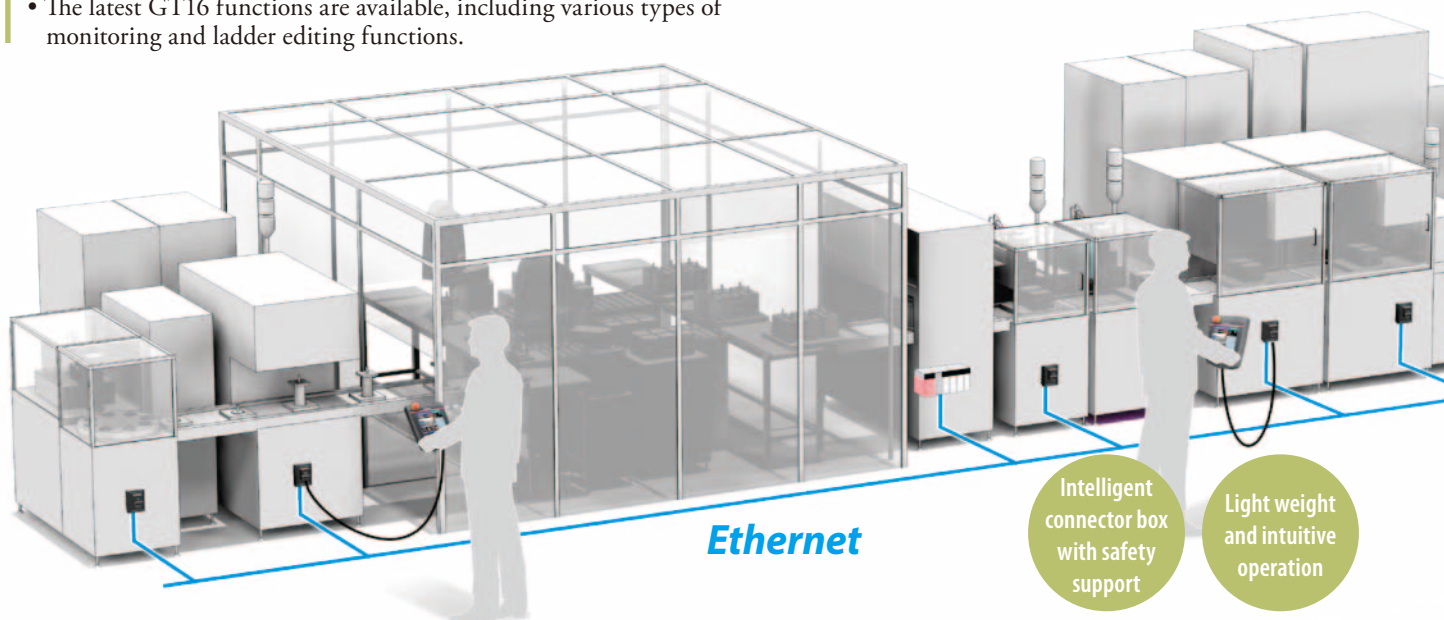
Ergonomic grip design

Ergonomic grip design enables the GT16 to be held at natural wrist angle and makes the screen easier to read.
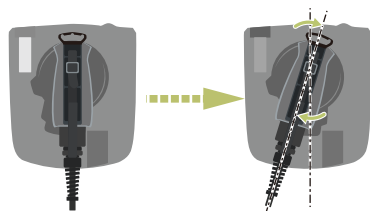
*Designed for left hand use.

Connector conversion box

GT16H-CNB-42S

An example of a system configuration with Ethernet connection

Emergency stop circuit I/Os for operation display etc.

External connection cable GT16H-C[ ]-42P

Connector conversion box GT16H-CNB-42S

Ethernet

A direct connection is possible to FX, Q PLC, etc. via RS-422/485 or RS-232 in parallel with Ethernet.

· The maximum Ethernet communication distance is 100m in total length.
· The maximum connection distance between the connector conversion box and the GOT is 10m.
· Up to four types of equipment can be connected .

QCPU

FX3U Ethernet special function block

Handy GOT GT11

Mobility for your visualization

GT11 Handy model features

GT1155HS
GT1150HS

Key selector switch

Emergency stop switch

6 operation switches

USB device interface
CF card slot

Hand strap

Grip switch

1Kg
(2.2lbs)

Display
• QVGA 320 x 240
• STN 256 colors / 16 gray scales
• Matrix resistive type touch panel

Function
• User memory capacity: 3MB
• CF card and USB port are included.
• RS-422 and RS-232 interfaces are supported.
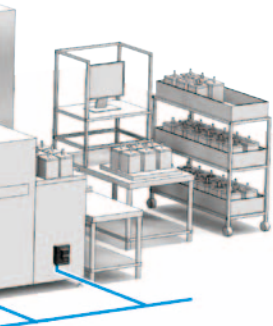
RS-422

Direct cable or connector box
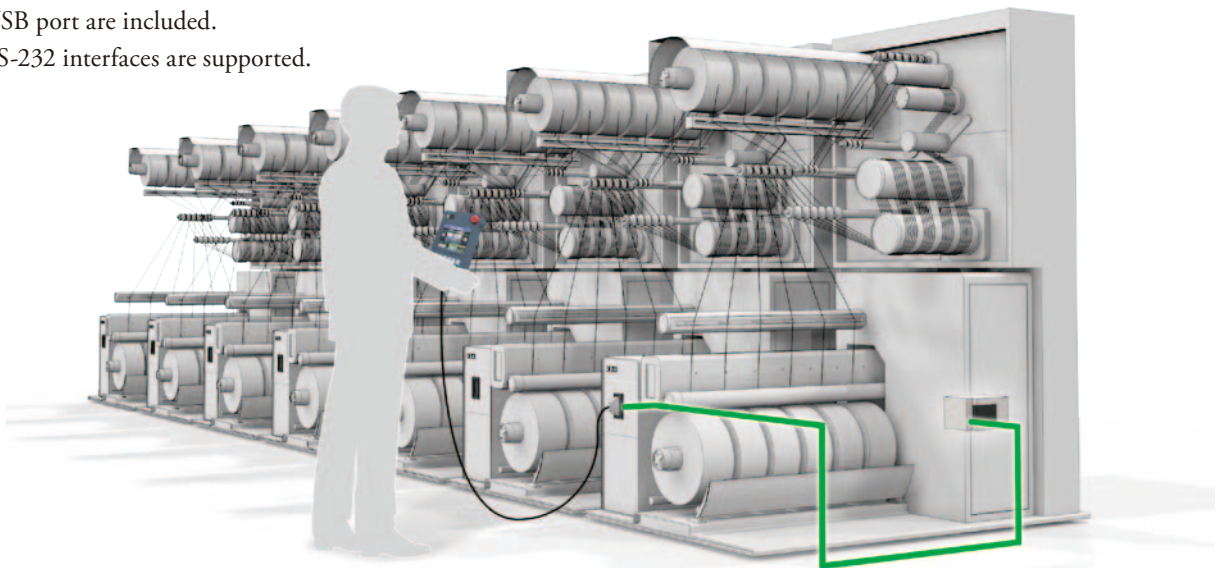
The connector conversion box is essential if serial communication or Ethernet is to be used with the GT16 Handy GOT.

Grip switch

The three-position (OFF-ON-OFF) type deadman switch is adopted as lock for preventing operation mistakes and prohibiting operation of a machine. The switch can directly control external equipment to give immediate stop commands to a machine.

OFF - ON - OFF

Reset   Reset

Lock is reset when the switch is pressed or released.
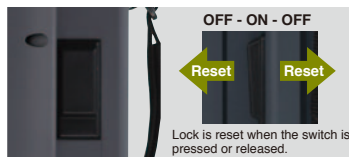
Emergency stop switch

This switch immediately activates a connected safety device. A "normally-closed contact" is adopted to assure safety. In addition, the switch guard cover is offered as an optional attachment to prevent accidental operation.

Connector conversion box

GT11H-CNB-37S

The optional connector conversion box is used to connect the GT11 Handy cable to the machine.

The GOT1000 delivers the competitive advantage.

MELSEC × GOT1000

Can the program be debugged without opening the cabinet?

GT16 & GT14 units provide a front-side USB device port for accessing the PLC in the cabinet with GX Works2 or GX LogViewer. The transparent function is also available for all other communication ports and GOT's.

Can PLC programs be recovered?

GT16, GT14, and GT12 support PLC data back-up and recovery functions. The information will be stored on the optional data storage device, CF card, SD card, or USB memory.
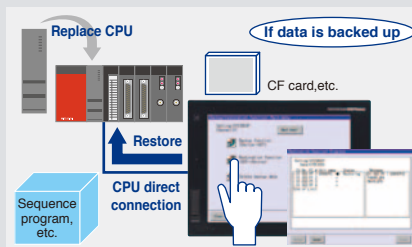
Can PLC programs be monitored and edited?

PLC programs can be monitored and edited in ladder format.
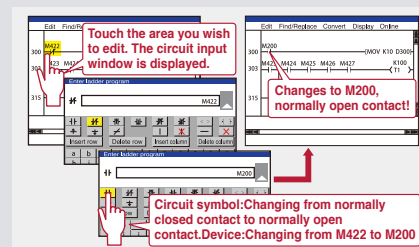
GOT1000

By building solutions based on Mitsubishi Electric products,

new functions and possibilities are available thanks to an in depth link between products.

FREQROL × GOT1000

Are inverters directly connectable?

Up to 31 inverter can be directly connected to a GOT1000 without the need for a PLC.

Is the transparent mode available?

The FR Configurator can connect via the GOT to the inverter without any need to change the connection.

MELSERVO ✕ GOT1000

Can the SFC program be checked?

The motion CPU program can be monitored in the diagram format from the GT16.

Can the servo amplifier error be validated?

With a serial connection directly to the servo amplifier, the status of the amplifier can be observed as well as parameter changed.

MELFA ✕ GOT1000

Can the robot be connected to the GOT?

The robot can be operated and maintained by the GOT. Available sample screens remove the need to prepare screens, from the scratch.

Can basic devices be accessed as well?

Embedded monitoring utilities are available, enabling viewing and changing of device values.

C70 series ✕ GOT1000

Can the status of the CNC be validated quickly?

Data, such as machining programs and parameters, can be copied from a GOT CF card or USB memory to the CNC C70 and vice versa. Data can be deleted as well.

Can the cause of an error be investigated directly?

By setting a program name and coil number of the CNC C70 to a touch switch, the relevant ladder circuit block can be displayed directly. Problems can be handled smoothly from the alarm screen.

The GOT1000 delivers the competitive advantage.

GOT1000

By building solutions based on Mitsubishi Electric products,

new functions and possibilities are available thanks to an in depth link between products.

Camera ✕ GOT1000

Can camera data be displayed and recorded?

The view of a camera connected to the video input of the GOT can be displayed and recorded in VGA quality.

The recording can be triggered by an alarm to save 120sec before and after the alarm occurrence as a video file in a CF card.

(Optional multimedia unit and CF card are necessary.)

GOT1000

Microphone

Multimedia unit

Video camera

CF card
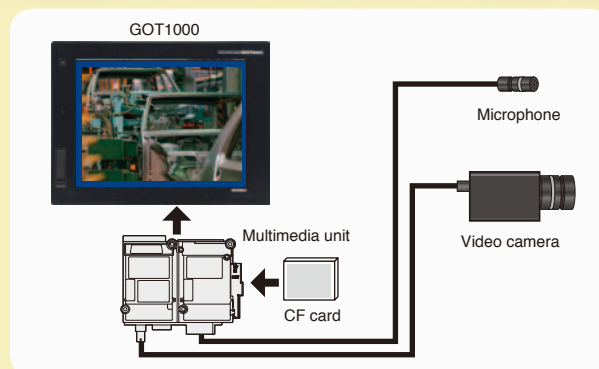
∗: Only compatible with GT16[ ]5M.

COGNEX In-Sight Vision System ✕ GOT1000

Can automation and vision systems be consolidated into a single platform?

By connecting a GOT to the In-Sight Series and PLC over Ethernet, the In-Sight Series processing results can be displayed and parameters can be changed via ready made GOT screens. The GT16 model has a built-in Ethernet port, allowing the system to be built easily.

(Optional video/RGB input unit is necessary.)

GOT1000

Vision View VGA

In-Sight

RS-232

RGB input unit

Ethernet
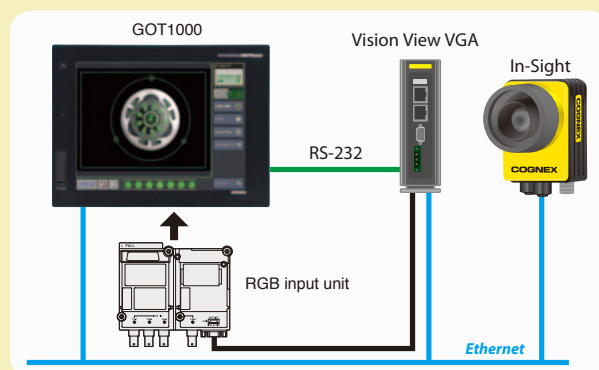
∗: Only compatible with GT16[ ]5M.

HMI software
GT SoftGOT1000 *Version 3*

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

Can standard GOT projects be used in the SoftGOT?

Project data of the GOT can be reused without any modifications. Usage of multiple GOT programs in one SoftGOT instance provides an effective way to overview all manufacturing machinery.

GT SoftGOT1000

Monitoring Line 1   Monitoring Line 2

Monitoring Line 3   Monitoring Line 4

Worksite

Office

Personal computer

Ethernet

Production site

Line 1   Line 2   Line 3   Line 4
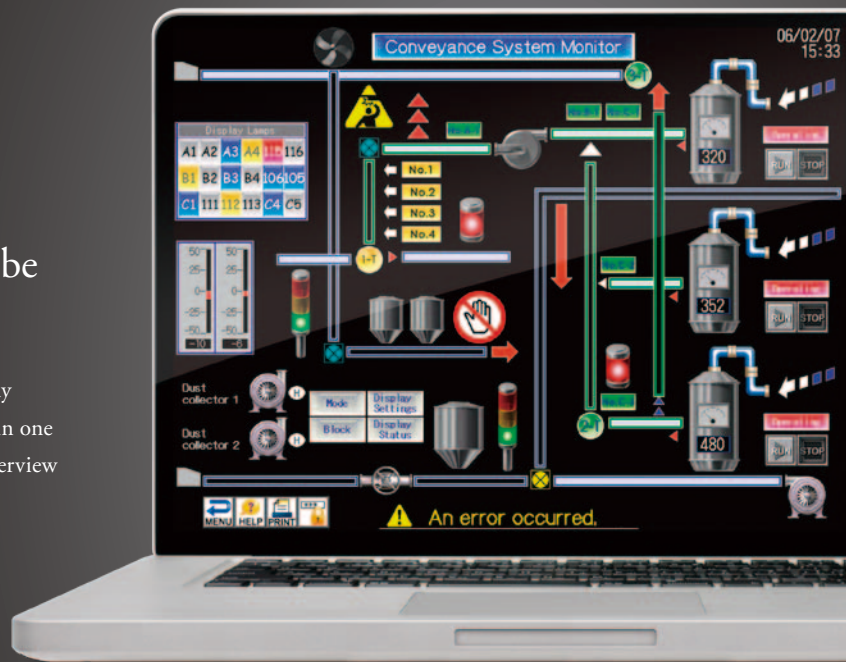
Is it possible to connect user software to the SoftGOT?

User-created applications can read and write information to and from internal devices of GT SoftGOT1000. By linking data with user applications such as a data logger, a high-performance system can be created. Touch switches on the GT SoftGOT1000 monitor can be used to launch other applications.

What kind of devices can be connected to the SoftGOT?

The GT SoftGOT1000 can be connected to the Mitsubishi PLCs, Robots, CNCs and other PLC brands through dedicated drivers. Connection to MODBUS®/TCP slaves also allows communication with the majority of Ethernet enabled devices.
Another option is connection to RFID or barcode readers to input numerical values or ASCII characters.

The GOT1000 delivers the competitive advantage.
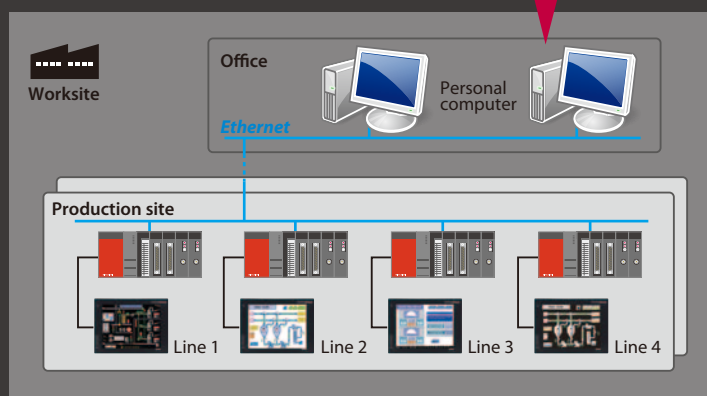
GOT1000 Screen Design Software

GT Works3

MELSOFT iQ Works

Suite of four MELSOFT software packages of the iQ Platform system

MELSOFT iQ Works

MELSOFT Navigator

| GX Works2 | GT Works3 | MT Works2 |

For more information, please refer to the these catalogs.
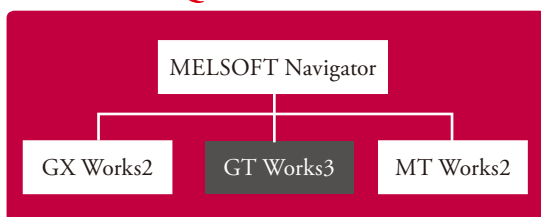
GT Works3
L (NA) 08170ENG

iQ Works
L (NA) 08232ENG

MELSOFT Navigator

MELSOFT Navigator, along with GX Works2, MT Works2, and GT Works3, facilitates system level design and acts as the interface between each software. Useful functions include design of system configuration, parameter batch setting, system labels, and batch read.
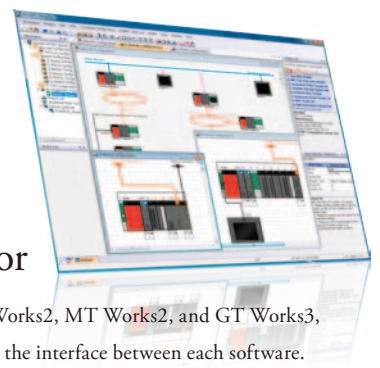
More intuitive. No more wasted time.
The screen design software optimized for usability.

Fine and sophisticated screen creation

Extensive Library

A broad line-up of high resolution parts for creation of vivid visualization.

Wide variety of fonts

All fonts conform to Unicode 2.1, and about 40 languages can be displayed clearly.

Simple settings and user friendly templates

User friendly templates

Diverse range of ready to use function and monitoring templates for easy implementation of complex tasks is available. User defined templates are supported as well.

Simple settings

Choose settings and operations using simple terms and display items directly from the configuration dialog box - saving valuable time and effort.

Compare and check images of ON/OFF state or each set range.
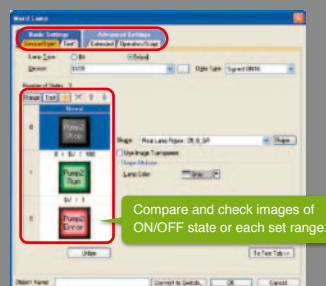
Easy and intuitive screen design environment

Personalize the user interface

Initial settings for objects and figures can be tailored to suit the individual programmer or designer.

① Right-click on a set object and register it by choosing "Set to Default".

Numerical display icon

Line A Operation Panel

② Click and place

③ Set the device

Before customization
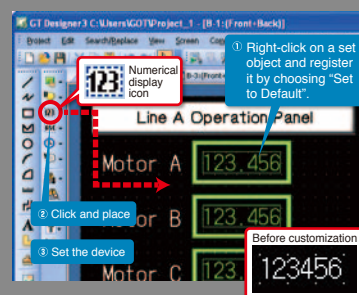
Complete help function

When the F1 key is pressed, help for the currently active dialog opens immediately! No more need to read the manuals.

When the F1 key is pressed while the Lamp setting dialog is displayed

Setting method is displayed.
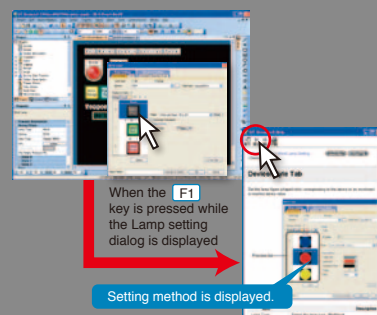
GX Works2

This software comprehensively supports programmable logic controller design and maintenance. In addition to inheriting program resources created with GX Developer, familiar functions have been refined to provide more intuitive operation and reduce engineering costs.
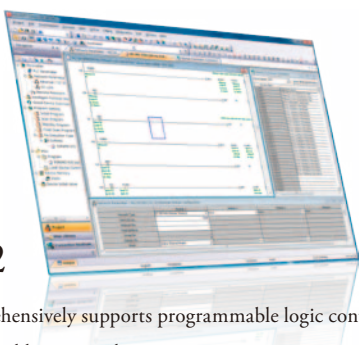
MT Works2

This software comprehensively supports motion controller design and maintenance. Reductions to the motion system's TCO are assisted by intuitive settings on a graphical screen, programming functions and convenient functions such as the digital oscillation simulator.

The GOT1000 delivers the competitive advantage.
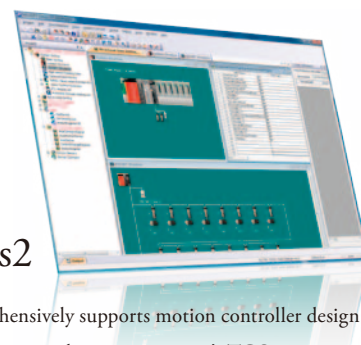
Function chart

Function	Panel mount				Handy GOT		SOFT GOT
	GT16	GT14	GT12	GT10	GT16	GT11	
Connection configuration							
Mitsubishi PLC bus	●						
Mitsubishi PLC CPU direct	●	●	●	●	●	●	●
Mitsubishi PLC computer link	●	●	●	●	●	●	
Mitsubishi PLC MELSECNET/H	●						●
Mitsubishi PLC MELSECNET/10	●						●
Mitsubishi PLC CC-Link IE Controller Network	●						●
Mitsubishi PLC CC-Link IE Field Network	●						●
Mitsubishi PLC CC-Link — Direct connection	●						
Mitsubishi PLC CC-Link — ID station/via G4	●	●	●	●	●	●	
Mitsubishi PLC Ethernet	●	●	●		●		●
Third party PLC	●	●	●	●	●	●	●
Microcomputer	●	●	●	●	●	●	
MODBUS®/RTU	●	●	●	●	●	●	
MODBUS®/TCP	●	●	●		●		●
Temperature controller	●	●	●		●	●	
Inverter	●	●	●	●	●	●	
Servo amplifier	●	●	●	●	●	●	
CNC	●	●	●		●	●	●
Robot controller	●		●		●		●
GOT multi-drop	●	●	●	●	●		
Memory							
Standard memory capacity	11MB, 15MB	9MB	6MB	512KB, 1.5MB, 3MB	15MB	3MB	57MB
Maximum memory capacity	57MB				57MB		
Display							
65,536 colors	●	●			●		●
4,096 colors	●						
256 colors			●	●	●		
16 colors	●						
Monochrome 16 gray scales		●			●		
Monochrome 16 scales blue/white				●			
Monochrome (black/white)				●			
1920x1200 dots (WUXGA)							●
1600x1200 dots (UXGA)							●
1280x1024 dots (SXGA)							●
1024x768 dots (XGA)	●						●
800x600 dots (SVGA)	●						●
640x480 dots (VGA)	●		●		●		●
320x240 dots (QVGA)		●		●		●	
288x96 dots				●			
160x64 dots				●			
Communication interfaces							
RS-232 interface	●	●	●	●	●	●	
RS-422/485 interface	●	●	●	●	●	●*1	
Ethernet interface	●	●	●		●		
USB interface — USB host	●	●			●		
USB interface — USB device	●	●	●	●*2	●	●	
SD card interface		●					
CF card interface	●		●		●	●	
Optional function board interface	●						
Extension interface	●						
Multimedia & Video/RGB interface	●						
Others Specifications							
Vertical display		●		●			
Clock function	●	●	●	●	●	●	●
Buzzer output	●	●	●	●	●	●	●
Human sensor	●						
Printer	●	●		●			●
CF card unit (CF card extension unit)	●						
Sound output	●						●
External input/output	●						
Video input / RGB input / RGB output	●						
USB mouse/keyboard connection	●	●					
Backlight OFF detection function	●	●	●		●	●	
Main unit functions							
Start from CF card / SD card	●	●	●		●		
Project data read/write	●	●	●	●	●	●	●
Resource data read	●	●	●	●	●	●	●
FA transparent function	●	●	●	●	●	●	

*1: Only RS-422
*2: Only GT105[ ], GT104[ ]

Function		Panel mount				Handy GOT		SOFT GOT
		GT16	GT14	GT12	GT10	GT16	GT11	
Multi-channel function		●	●	●		●		
Gateway function		●	●	●		●		
MES interface function		●						
SoftGOT-GOT link function		●				●		●
File transfer function (FTP client)		●	●			●		
Screen design								
Base screen, window screen		●	●	●	●	●	●	●
Dialog window display		●	●	●		●	●	●
Graphic drawing	BMP image display	●	●	●	●	●	●	●
	JPEG image display	●	●	●		●		●
	DXF data	●	●	●	●	●	●	●
	IGES data	●	●	●		●	●	●
Standard fonts (basic) Japanese, Chinese (Simplified), Chinese (Traditional) with European language support		●	●	●	●	●	●	●
Standard fonts (optional) Chinese (Simplified), Chinese (Traditional), Japanese		●	●			●		●
High-quality font		●	●	●	●	●	●	●
True Type font, True Type font (7 segments)		●	●	●	●	●	●	●
Windows® font		●	●	●	●	●	●	●
Stroke basic font (extended)		●	●			●		●
Stroke font (optional)		●	●			●		●
Logo character function		●	●	●	●	●	●	●
Parts (object + figure) layer function		●	●	●		●	●	●
Station No. switching		●	●	●		●		●
Multilingual support function		●	●	●	●	●	●	●
Password		●	●	●	●	●	●	●
Boot logo		●	●	●	●	●	●	●
Data operation function		●	●	●	●	●	●	●
Offset function		●	●	●	●	●	●	●
Security function	Security level authentication	●	●	●	●	●	●	●
	Operator authentication	●				●		●
Lamp display		●	●	●	●	●	●	●
Touch switch		●	●	●	●	●	●	●
Numeric display/input		●	●	●	●	●	●	●
Data list display		●	●	●		●	●	●
Historical data list display		●	●	●		●		●
ASCII display/input		●	●	●	●	●	●	●
Kana-Kanji conversion function (Enhanced version)		●				●		●
Clock display		●	●	●	●	●	●	●
Comment display		●	●	●	●	●	●	●
Extended alarm monitoring/display		●	●	●		●		●
Alarm display		●	●	●	●	●	●	●
Alarm history display		●		●	●	●	●	●
Floating alarm display			●		●		●	
Parts display		●	●	●	●	●	●	●
Parts movement		●	●	●		●	●	●
Panel meter display		●	●	●	●	●	●	●
Level display		●	●	●		●	●	●
Graph (Trend/Line/Bar/Statistical)		●	●	●	●	●	●	●
Historical trend graph		●	●	●		●		●
Scatter graph		●	●	●		●	●	●
Status observation function		●	●	●	●	●	●	●
Advanced recipe function		●	●			●		●
Recipe function		●	●	●	●	●	●	●
Report function		●						●
Hardcopy function	File saving in Memory card	●	●	●		●		●
	Printing on printer	●	●		●			●
Barcode function		●	●	●	●			●
RFID function		●	●	●				●
Multimedia function		●						
Remote personal computer function (Ethernet)		●						
Remote personal computer function (serial)		●						
VNC® server function		●				●		
Operation panel function		●						●
Operation log function		●				●		●
Document display function		●				●		●
Logging function		●	●	●		●		●
Log viewer function		●				●		
Script function	Project script/Screen script	●	●	●		●	●	●
	Object script	●	●			●		●
Device data transfer function		●	●			●		●

The GOT1000 delivers the competitive advantage.

Specifications

Power supply specifications

Item	GT1695M-XTBA	GT1685M-STBA	GT1675M-STBA / GT1675M-VTBA / GT1675-VNBA / GT1672-VNBA / GT1665M-STBA / GT1665M-VTBA / GT1662-VNBA	GT1695M-XTBD	GT1685M-STBD	GT1675M-STBD / GT1675M-VTBD / GT1675-VNBD / GT1672-VNBD / GT1665M-STBD / GT1665M-VTBD / GT1662-VNBD	GT1655-VTBD
Input power supply voltage	100 to 240VAC (+10%, -15%)			24VDC (+25%, -20%)			
Input frequency	50/60Hz ±5%			–			
Input maximum apparent power	150VA (at max. load)	110VA (at max. load)	100VA (at max. load)	–			
Power consumption	64W or less	46W or less	39W or less	60W or less	40W or less	38W or less	16W or less
Power consumption — With backlight off	38W or less	32W or less	30W or less	30W or less	26W or less	27W or less	14W or less
Inrush current	28A or less (4ms, at max. load)			12A or less (75ms, at max. load)	12A or less (55ms, at max. load)		67A or less (1ms, at max. load)
Permissible instantaneous failure time	Within 20ms (100VAC or more)			Within 10ms			
Noise resistance	Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz			Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz			
Withstand voltage	1500VAC for 1 minute between power supply terminal and ground			500VDC for 1 minute between power supply terminal and ground			
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)						

Performance specifications

Item		GT1695M-XTBA / GT1695M-XTBD	GT1685M-STBA / GT1685M-STBD	GT1675M-STBA / GT1675M-STBD	GT1675M-VTBA / GT1675M-VTBD	GT1675-VNBA / GT1675-VNBD	GT1672-VNBA / GT1672-VNBD	GT1665M-STBA / GT1665M-STBD	GT1665M-VTBA / GT1665M-VTBD	GT1662-VNBA / GT1662-VNBD	GT1655-VTBD
Display	Type	TFT color LCD (high-brightness, wide viewing angle)				TFT color LCD		TFT color LCD (high-brightness, wide viewing angle)		TFT color LCD	TFT color LCD (high-brightness, wide viewing angle)
	Screen size	15"	12.1"	10.4"				8.4"			5.7"
	Resolution [dots]	XGA: 1024x768	SVGA: 800x600			VGA: 640x480		SVGA: 800x600	VGA: 640x480		
	Display size (W)x(H) [mm]	304.1x228.1	246x184.5	211x158				171x128			115x86
	Display colors	65,536 colors				4,096 colors	16 colors	65,536 colors		16 colors	65,536 colors
	Intensity adjustment	8-step adjustment				4-step adjustment		8-step adjustment		4-step adjustment	8-step adjustment
Touch panel	Type	Analog resistive type									
	Key size [dots]	Min. 2x2 (per key)									
	No. of simultaneous touch points	Simultaneous touch prohibited (If two or more points are pressed simultaneously, the switch may function near the center of the pressed points.)									
Memory*3	C drive	15MB built-in flash memory (for saving project data and OS)				11MB built-in flash memory (for saving project data and OS)		15MB built-in flash memory (for saving project data and OS)		11MB built-in flash memory (for saving project data and OS)	15MB built-in flash memory (for saving project data and OS)
Battery		GT15-BAT type lithium battery									GT11-50BAT type litium battery
	Backed up data	Clock data, maintenance time notification data, system log data and SRAM user area (500KB)									
Built-in interface	RS-232	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with connected devices, connection to personal computer (project data read/write, OS installation, and FA transparent function)									
	RS422/485	RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: 14-pin (female) Application: Communication with connected devices									
	Ethernet	Data transfer system: 100BASE-TX, 10BASE-T, 1ch Connector shape: RJ-45 (modular jack) Application: Communication with connected devices, gateway function, connection to personal computer (project data read/write, OS installation, FA transparent function, and MES interface function)									
	USB	USB (full-speed 12Mbps), host 1ch Connector shape: TYPE-A Application: USB mouse/keyboard connection, USB memory data transfer and storage FAT16 format: max. 2GB, FAT32 format: max. 32GB									
		USB (full-speed 12Mbps), device 1ch Connector shape: Mini-B Application: Connection to personal computer (project data read/write, OS installation, and FA transparent function)									

Item		GT1695M-XTBA GT1695M-XTBD	GT1685M-STBA GT1685M-STBD	GT1675M-STBA GT1675M-STBD	GT1675M-VTBA GT1675M-VTBD	GT1675-VNBA GT1675-VNBD	GT1672-VNBA GT1672-VNBD	GT1665M-STBA GT1665M-STBD	GT1665M-VTBA GT1665M-VTBD	GT1662-VNBA GT1662-VNBD	GT1655-VTBD
Built-in interface	CF card	CF card slot, 1ch Connector shape: TYPE 1 Application: Data transfer, data storage, and GOT startup FAT16 format: max. 2GB, FAT32 format: max. 32GB									
	Optional function board	1ch for optional function board installation									
	Extension unit	2ch for communication unit/optional unit installation									1ch for communication unit/optional unit installation
Applicable software packages		GT Works3 Version1.54G or later				GT Works3 Version1.54G or late(not supported by GT Works2/GT Designer2)		GT Works3 Version1.54G or later			GT Works3 Version1.54G or later (not supported by GT Works2/GT Designer2)
External dimensions (W)x(H)x(D) [mm]		397x296x61	316x242x52	303x214x49				241x190x52			267x135x60
Panel cut dimensions (W)x(H) [mm]		383.5x282.5	302x228	289x200				227x176			153x121

GT14

Power supply specifications

Item		GT1455-QTBDE	GT1450-QLBDE
Input power supply voltage		24VDC (+10%, -15%), ripple voltage of 200mV or less	
Power consumption		8.40W or less (350mA/24VDC)	
	With backlight off	7.44W or less (310mA/24VDC)	
Inrush current		30A or less (2ms, at max. load)	
Permissible instantaneous failure time		Within 5ms	
Noise resistance		Noise voltage 1000Vp-p, noise width 1µs by noise simulator with noise frequency 30 to 100Hz	
Withstand voltage		500VAC for 1 minute between power supply terminal and ground	
Insulation resistance		10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)	

Performance specifications

Item		GT1455-QTBDE	GT1450-QLBDE
Display	Type	TFT color LCD	STN monochrome (black/white) LCD
	Screen size	5.7"	
	Resolution [dots]	QVGA: 320x240	
	Display size(W)x(H) [mm]	115x86(in horizontal display mode)	
	Display colors	65,536 colors	Monochrome (black/white) 16 gray scales
	Intensity adjustment	8-step adjustment	
Touch panel	Type	Analog resistive type	
	Key size [dots]	Min. 2x2 (per key)	
	No. of simultaneous touch points	Simultaneous touch prohibited (If two or more points are pressed simultaneously, the switch may function near the center of the pressed points.)	
Memory	C drive	9MB built-in flash memory (for saving project data and OS)	
Battery		GT11-50BAT type lithium battery	
	Backed up data	Clock data, alarm history, recipe data, time action set values, advanced alarm, advanced recipe, logging, hardcopy, and SRAM user area	
Built-in interface	RS-232	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with connected devices, connection to barcode reader/RFID, connection to personal computer (project data read/write, OS installation, and FA transparent function)	
	RS422/485	RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with connected devices Terminal resistance: OPEN/110Ω /330Ω (switching by terminal resistance transfer switch)	
	Ethernet	Data transfer system: 100BASE-TX, 10BASE-T, 1ch Connector shape: RJ-45 (modular jack) Application: Communication with connected devices, gateway function, connection to personal computer (project data read/write, OS installation, and FA transparent function)	
	USB	USB (full-speed 12Mbps), host 1ch Connector shape: TYPE-A Application: USB mouse/keyboard connection, USB memory data transfer and storage FAT16 format: max. 2GB, FAT32 format: max. 32GB	
		USB (full-speed 12Mbps), device 1ch Connector shape: Mini-B Application: Connection to personal computer (project data read/write, OS installation, and FA transparent function)	
	SD card	Complied with SD standard, 1ch Supported memory card: SDHC memory card, SD memory card Application: project data read/write, OS installation, logging data storage FAT16 format: max. 2GB, FAT32 format: max. 32GB	
Applicable software packages		GT Works3 Version1.54G or later (not supported by GT Works2/GT Designer2)	
External dimensions (W)x(H)x(D) [mm]		164x135x55	
Panel cut dimensions (W)x(H) [mm]		153x121	

■ **The GOT1000 delivers the competitive advantage.**

GT12

Power supply specifications

Item	GT1265-VNBA/GT1275-VNBA		GT1265-VNBD/GT1275-VNBD
Input power supply voltage	100 to 240VAC (+10%, -15%)		24VDC (+25%, -20%)
Input frequency	50/60Hz ±5%		–
Input maximum apparent power	44VA (at max. load)		–
Power consumption	18W or less		11W or less
	With backlight off	15W or less	6W or less
Inrush current	40A or less (4ms, at max. load)		29A or less (2ms, at max. load)
Permissible instantaneous failure time	Within 20ms (100VAC or more)		Within 10ms
Noise resistance	Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz		Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz
Withstand voltage	1500VAC for 1 minute between power supply terminal and ground		500VDC for 1 minute between power supply terminal and ground
Insulation resistance [1]	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)		

[1]: In DC type products, the surge absorber is connected between the power supply and the ground to avoid a malfunction due to noise caused by lightning surge.
The values of the dielectric withstand voltage and insulation resistance are recorded when the surge absorber is not connected.

Performance specifications

Item		GT1275-VNBA GT1275-VNBD	GT1265-VNBA GT1265-VNBD
Display	Type	TFT color LCD	
	Screen size	10.4"	8.4"
	Resolution [dots]	VGA: 640x480	
	Display size(W)x(H) [mm]	211.2x158.4	170.9x128.2
	Display colors	256 colors	
	Intensity adjustment	4-step adjustment	
Touch panel	Type	Analog resistive type	
	Key size [dots]	Min. 2x2 (per key)	
	No. of simultaneous touch points	Simultaneous touch prohibited (If two or more points are pressed simultaneously, the switch may function near the center of the pressed points.)	
Memory	C drive	6MB built-in flash memory (for saving project data and OS)	
Battery		GT11-50BAT type lithium battery (optional)	
	Backed up data	Clock data, alarm history, and recipe data	
Built-in interface	RS-232	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with connected devices, connection to personal computer (project data read/write, OS installation, and FA transparent function)	
	RS422/485	RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with connected devices	
	Ethernet	Data transfer system: 100BASE-TX, 1ch Connector shape: RJ-45 (modular jack) Application: Communication with connected devices, connection to personal computer (project data read/write, OS installation, and FA transparent)	
	USB	USB (Full Speed 12 Mbps), device 1ch Connector shape: Mini-B Application: Connection to personal computer (project data read/write, OS installation, and FA transparent function)	
	CF card	CF card slot, 1ch Connector shape: TYPE I Application: Data transfer, data storage, and GOT startup FAT16 format: max. 2GB, FAT32 format: not usable	
Applicable software packages		GT Works3 Version1.54G or later (not supported by GT Works2/GT Designer2)	
External dimensions (W)x(H)x(D) [mm]		303x214x53	241x190x58
Panel cut dimensions (W)x(H) [mm]		289x200	227x176

GT10

Power supply specifications

Item		GT1055-QSBD	GT1050-QBBD	GT1045-QSBD	GT1040-QBBD	GT1030-HBD GT1030-HWD GT1030-HBD2 GT1030-HWD2 GT1030-HBDW GT1030-HWDW GT1030-HBDW2 GT1030-HWDW2	GT1020-LBD GT1020-LWD GT1020-LBD2 GT1020-LWD2 GT1020-LBDW GT1020-LWDW GT1020-LBDW2 GT1020-LWDW2	GT1030-HBL GT1030-HWL GT1030-HBLW GT1030-HWLW GT1020-LBL GT1020-LWL GT1020-LBLW GT1020-LWLW
Input power supply voltage		24VDC (+10%, -15%), ripple voltage of 200mV or less						5VDC (±5%), supplied from PLC communication cable
Power consumption		9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)	3.6W or less (150mA/24VDC)		2.2W or less (90mA/24VDC)	1.9W or less (80mA/24VDC)	1.1W or less (220mA/5VDC)
	With backlight off	4.32W or less (180mA/24VDC)		2.9W or less (120mA/24VDC)		1.7W or less (70mA/24VDC)	1.2W or less (50mA/24VDC)	0.6W or less (120mA/5VDC)
Inrush current		15A or less (26.4V) 2ms				18A or less (26.4DCV) 1ms	13A or less (26.4DCV) 1ms	–
Permissible instantaneous failure time		Within 5ms						–
Noise resistance		Noise voltage 1000Vp-p, noise width 1μs by noise simulator with noise frequency 30 to 100Hz						
Withstand voltage		500VAC for 1 minute between power supply terminal and ground						–
Insulation resistance		10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)						–

Performance specifications

Item		GT1055-QSBD	GT1050-QBBD	GT1045-QSBD	GT1040-QBBD
Display	Type	STN color LCD	STN monochrome (blue/white) LCD	STN color LCD	STN monochrome (blue/white) LCD
	Screen size	5.7"		4.7"	
	Resolution [dots]	QVGA: 320x240			
	Display size(W)x(H) [mm]	115x86 (in horizontal display mode)		96x72 (in horizontal display mode)	
	Display colors	256 colors	Monochrome (blue/white) 16 gray scales	256 colors	Monochrome (blue/white) 16 gray scales
	Contrast adjustment	16-step adjustment			
Touch panel	Type	Matrix resistive type			
	Key size [dots]	Min. 16x16(per key)			
	No. of simultaneous touch points	Max. 2 points			
Memory	User memory	Built-in flash memory for saving project data (3 MB or less) and OS			
Battery		GT11-50BAT type lithium battery			
	Backed up data	Clock data, alarm history, recipe data, and time action set values			
Built-in interface	RS-232	RS-232, 1ch　　　Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with PLCs, connection with barcode readers, communication with personal computers (project data read/write, OS installation, and transparent function)			
	RS422/485	RS-422/485, 1ch　　　Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with PLCs Terminal resistance: OPEN/110Ω/330Ω (switched by terminal resistance transfer switch)			
	USB	USB (full-speed 12Mbps), device 1ch Connector shape: Mini-B Application: Communication with personal computer (project data read/write, OS installation, and transparent function)			
Applicable software packages		GT Works3 Version1.54G or later			
External dimensions (W)x(H)x(D) [mm]		164x135x56		139x112x41	
Panel cut dimensions (W)x(H) [mm]		153x121		130(+1 -0)x103(+1 -0)	

Item		GT1030-HBD GT1030-HWD GT1030-HBL GT1030-HWL	GT1030-HBDW GT1030-HWDW GT1030-HBLW GT1030-HWLW	GT1030-HBD2 GT1030-HWD2	GT1030-HBDW2 GT1030-HWDW2	GT1020-LBD GT1020-LWD GT1020-LBL GT1020-LWL	GT1020-LBDW GT1020-LWDW GT1020-LBLW GT1020-LWLW	GT1020-LBD2 GT1020-LWD2	GT1020-LBDW2 GT1020-LWDW2
Display	Type	STN monochrome (blue/white) LCD							
	Screen size	4.5"				3.7"			
	Resolution [dots]	288x96 (in horizontal mode)				160x64 (in horizontal mode)			
	Display size (W)x(H) [mm]	109.42x35.98 (in horizontal mode)				86.4x34.5 (in horizontal mode)			
	Display colors	Monochrome (black/white)							
	Intensity adjustment	8-step adjustment				–			
Backlight	Color (no need to replace)	3-color LED							
		green, orange, red	white, pink, red	green, orange, red	white, pink, red	green, orange, red	white, pink, red	green, orange, red	white, pink, red
Touch panel	Type	Matrix resistive type				Analog resistive type			
	Key size [dots]	Min. 16x16(per key)				Min. 2x2(per key)			
	No. of simultaneous touch points	Max. 2 points				Impossible (If there is a switch near the center of the pressed keys, the switch may function.)			
Memory	User memory	Built-in flash memory for saving project data (1.5MB or less) and OS				Built-in flash memory for saving project data (512KB or less), OS, alarm history, recipe data, and time action set values			
Battery		GT11-50BAT type lithium battery				–			
	Backed up data	Clock data, alarm history, recipe data, and time action set values				–			
Built-in interface	For communication with PLC	GT1030-HBD/HWD, GT1030-HBDW/HWDW RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC Terminal resistance: OPEN/110Ω/330Ω (switched by terminal resistance transfer switch) GT1030-HBL/HWL, GT1030-HBLW/HWLW RS-422, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connector terminal block, 9-pin Application: Communication with PLC		RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		GT1020-LBD/LWD, GT1020-LBDW/LWDW RS-422/485 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC Terminal resistance: OPEN/110Ω/330Ω (switched by terminal resistance transfer switch) GT1020-LBL/LWL, GT1020-LBLW/LWLW RS-422 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC		RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Connecter terminal block, 9-pin Application: Communication with PLC	
	For communication with personal computer	RS-232, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Mini DIN 6-pin (female) Application: Communication with personal computer (project data read/write, OS installation, and transparent function)							
Applicable software packages		GT Works3 Version1.54G or later (not supported GT Works2/GT Designer 2)				GT Works3 Version1.54G or later			
External dimensions (W)x(H)x(D) [mm]		145x76x29.5				113x74x27			
Panel cut dimensions (W)x(H) [mm]		137x66				105x66			

Power supply specifications

Item		GT1665HS-VTBD	GT1155HS-QSBD	GT1150HS-QLBD
Input power supply voltage		24VDC (+10%, -15%)	24VDC (+10%, -15%), ripple voltage of 200mV or less	
Power consumption		11.6W or less	9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)
	With backlight off	8.2W or less	4.32W or less (180mA/24VDC)	
Inrush current		30A or less (2ms, at max. load)	15A or less (2ms, at max. load)	
Permissible instantaneous failure time		Within 5ms		
Noise resistance		Noise voltage 1000Vp-p, noise width 1µs by noise simulator with noise frequency 30 to 100Hz		
Withstand voltage		500VDC for 1 minute between power supply terminal and ground	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)		

Performance specifications

Item		GT1665HS-VTBD	GT1155HS-QSBD	GT1150HS-QLBD
Display	Type	TFT color LCD (high-brightness, wide viewing angle)	STN color LCD	STN monochrome (black/white) LCD
	Screen size	6.5"	5.7"	
	Resolution [dots]	VGA: 640x480	QVGA: 320x240	
	Display size (W)x(H) [mm]	132.5x99.4	115x86	
	Display colors	65,536 colors	256 colors	Monochrome (black/white) 16 gray scales
	Intensity adjustment	8-step adjustment		
Touch panel	Type	Analog resistive type	Matrix resistive type	
	Key size [dots]	Min. 2x2 (per key)	Min. 16x16 (per key)	
	No. of simultaneous touch points	Simultaneous touch prohibited (If two or more points are pressed simultaneously, the switch may function near the center of the pressed points.)	Max. 2 points	
Memory	C drive	15MB built-in flash memory (for saving project data and OS)	3MB built-in flash memory (for saving project data and OS)	
Battery		GT15-BAT type lithium battery	GT11-50BAT type lithium battery	
	Backed up data	Clock data, maintenance time notification data, system log data and SRAM user area (500KB)	Clock data, alarm history, recipe data, and time action set values	
Built-in interface	RS-232	RS-232, RS-422/485, 1ch, each (When using, select on of the channels.) Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Square, 42-pin (male) Application: Communication with connected devices	RS-232, 1ch Transmission speed: 115200/ 57600/38400/19200/9600/4800bps Connector shape: Mini-DIN 6-pin (female) Application: Connection to personal computer (project data read/write, OS installation and FA transparent function, etc.)	
	RS422/485		–	
	RS422/232	–	RS-422/232, 1ch (Select one when using.) Transmission speed: 115200/ 57600/38400/19200/9600/4800bps Connector shape: Round type, 32-pin (male) Application: Communication with connected devices	
	Ethernet	Data transfer system: 100BASE-TX, 10BASE-T, 1ch Connector shape: Square, 42-pin (male) Application: Communication with connected devices, gateway function, connection to personal computer (project data read/write, OS installation, and FA transparent function)	–	
	USB	USB (full-speed 12Mbps), host 1ch Connector shape: TYPE-A Application: USB memory data transferand storage FAT16 format: max. 2GB, FAT32 format: max. 32GB	USB (full-speed 12Mbps), device 1ch Connector shape: Mini-B Application: Connection to personal computer (project data read/write, OS installation, and FA transparent function)	
		USB (full-speed 12Mbps), device 1ch Connector shape: Mini-B Application: Connection to personal computer (project data read/write, OS installation, and FA transparent function)		
	CF card	CF card slot, 1ch Connector shape: TYPE I Application: Data transfer, data storage, and GOT startup FAT16 format: max. 2GB, FAT32 format: max. 32GB	CF card slot, 1ch Connector shape: TYPE I Application: Data transfer, data storage, GOT startup FAT16 format: max. 2GB, FAT32 format: not usable	
	Optional function board	–	Embedded in main unit	
Applicable software packages		GT Works3 Version1.54G or later (not supported by GT Works2/GT Designer2)	GT Works3 Version1.54G or later	
External dimensions (W)x(H)x(D) [mm]		201x230x97	176x220x93	

The applicable connection configuration and cable vary depending on the GOT main unit. For more details, see the GOT1000 Series Handbook and the GOT1000 Series Connection Manual.

Communication interface

Product name	Model name	Specifications		Applicable model				
				GT16	GT14	GT12	GT10	Handy GOT
Bus connection unit	GT15-QBUS	Bus connection (1ch) unit standard model for QCPU (Q mode)/motion controller CPU (Q series)		●	–	–	–	–
	GT15-QBUS2	Bus connection (2ch) unit standard model for QCPU (Q mode)/motion controller CPU (Q series)		●	–	–	–	–
	GT15-75QBUSL	Bus connection (1ch) unit thin model[1] for QCPU (Q mode)/motion controller CPU (Q series)		●	–	–	–	–
	GT15-75QBUS2L	Bus connection (2ch) unit thin model[1] for QCPU (Q mode)/motion controller CPU (Q series)		●	–	–	–	–
Serial communication unit	GT15-RS2-9P	RS-232 serial communication unit (D-sub 9-pin (male))		●	–	–	–	–
	GT15-RS4-9S	RS-422/485 serial communication unit (D-sub 9-pin (female))[2]		●	–	–	–	–
	GT15-RS4-TE	RS-422/485 serial communication unit (terminal block) *Usable only when connecting to temperature controllers/indicating controllers via RS-485 or in GOT multi-drop connection		●	–	–	–	–
RS-422 conversion unit	GT15-RS2T4-9P	RS-232 to RS-422 conversion unit	RS-422 connector: 9-pin	●[3][4]	–	–	–	–
	GT15-RS2T4-25P		RS-422 connector: 25-pin	●[3][4]	–	–	–	–
MELSECNET/H communication unit	GT15-J71LP23-25	Standard station unit (optical loop)		●	–	–	–	–
	GT15-J71BR13	Standard station unit (coaxial bus)		●	–	–	–	–
CC-Link IE Controller Network communication unit	GT15-J71GP23-SX	Standard 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 (supporting CC-Link version 2)		●	–	–	–	–
Serial multi-drop connection unit	GT01-RS4-M	For GOT multi-drop connection		●	●	●	●	–
Connector conversion adapter	GT10-9PT5S	Conversion connector between D sub 9-pin male and Europe terminal block 5-pin		–	●	●	●	–
RS-232/485 Signal Conversion Adapter	GT14-RS2T4-9P	Conversion adapter from RS-232 to RS-485		–	●	–	–	–

*1: The unit cannot be used stacked on other units.
*2: The unit cannot be used when connecting to temperature controllers/indicating controllers via RS-485 (2-wire type)
*3: For the instructions for connection of GT16, please contact your local sales office. The unit cannot be used with the GT1655.
*4: When using the unit in a direct connection with a QCPU, only the QnUCPU is supported.

Optional units

Product name	Model name	Specifications	Applicable model				
			GT16	GT14	GT12	GT10	Handy GOT
Printer unit	GT15-PRN	USB slave (PictBridge) for printer connection, 1ch *Cable for printer connection (3m) included	●	–	–	–	–
Multimedia unit	GT16M-MMR	For video input (NTSC/PAL) 1ch Record video images/play video files	●[2]	–	–	–	–
Video input unit	GT16M-V4	For video input (NTSC/PAL) 4ch	●[2]	–	–	–	–
RGB input unit	GT16M-R2	For analog RGB input 2ch	●[2]	–	–	–	–
Video/RGB input unit	GT16M-V4R1	For video input (NTSC/PAL) 4ch / analog RGB 1ch composite input	●[2]	–	–	–	–
RGB output unit	GT16M-ROUT	For analog RGB output 1ch	●[2]	–	–	–	–
CF card unit	GT15-CFCD	For additional CF card port (B drive) on the back of the GOT	●	–	–	–	–
CF card extension unit	GT15-CFEX-C08SET	For additional CF card port (B drive) at the front of the control panel [1]	●	–	–	–	–
Sound output unit	GT15-SOUT	For sound output	●	–	–	–	–
External input/output unit	GT15-DIOR	For external input/output devices and operation panel connection (negative common input / source type output)	●	–	–	–	–
	GT15-DIO	For external input/output devices and operation panel connection (positive common input / sink type output)	●	–	–	–	–

*1: Includes unit to be installed on the control panel, unit to be installed on the GOT, and connection cable (0.8m).
*2: Excluding the GT16[ ][ ]-VNB[ ] and GT1655.

Cables

[ ]: 02(0.2m), 06(0.6m), 10(1m), 12(1.2m), 15(1.5m), 30(3m), 50(5m), 60(6m), 80(80m), 100(10m), 130(13m), 150(15m), 200(20m), 250(25m), 300(30m), 350(35m)

Product name		Model name		Application	Applicable model				
					GT16	GT14	GT12	GT10	Handy GOT
Bus connection cable for QCPU (Q mode)	QCPU extension cable GOT-to-GOT connection cable	GT15-QC[ ]B[1]	[ ]: 06, 12, 30, 50, 100	For connection between QCPU and GOT For connection between GOT and GOT	●	–	–	–	–
	Long-distance connection cable for QCPU GOT-to-GOT long-distance connection cable	GT15-QC[ ]BS[1]	[ ]: 150, 200, 250, 300, 350	For long-distance (13.2m or more) connection between QCPU and GOT (A9GT-QCNB required) For long-distance connection between GOT and GOT	●	–	–	–	–
Ferrite core set for Q bus cable (two-pack)		GT15-QFC[1]	–	Ferrite cores for replacing existing GOT-A900 bus cable with bus cable for GOT1000	●	–	–	–	–
RS-422 conversion cable		GT16-C[ ]R4-9S[1]	[ ]: 02	For connection between RS-422/485 (connector) of GT16 and RS-422 cable (D-sub 9 pins)	●	–	–	–	–
		GT16-C[ ]R4-25S[1]	[ ]: 02	For connection between RS-422/485 (connector) of GT16 and RS-422 cable (D-sub 25 pins)	●	–	–	–	–

The GOT1000 delivers the competitive advantage.

Product name		Model name	Application	Applicable model				
				GT16	GT14	GT12	GT10	Handy GOT
RS-422 cable	QnA/A/FXCPU direct connection cable Computer link connection cable	GT01-C[ ]R4-25P	For connection between QnA/ACPU/motion controller CPU (A series)/FXCPU (D-sub 25-pin connector) and GOT For connection between FA-CNV[ ]CBL and GOT For connection between serial communication unit and GOT For connection between AJ65BT-G4-S3 and GOT	●*6	●	●	●*4	●*2
		GT10-C[ ]R4-25P	For connection between QnA/A/FXCPU (D-sub 25-pin connector) and GOT For connection between serial communication unit (AJ71QC24(N)-R4) and GOT	–	–	–	●*5	–
	Computer link connection cable	GT09-C[ ]R4-6C*1	For connection between serial communication unit and GOT For connection between computer link unit and GOT	●*6	●	●	●*4	●*2
	FXCPU direct connection cable FX communication function extension board connection cable	GT01-C[ ]R4-8P	For connection between FXCPU (MINI-DIN 8-pin connector) and GOT	●*6	●	●	●*4	●*3
		GT10-C[ ]R4-8P	For connection between FXCPU communication function extension board (MINI-DIN 8-pin connector) and GOT	–	–	–	●*5	–
		GT10-C[ ]R4-8PL	For connection between FXCPU (MINI-DIN 8-pin connector) and GOT For connection between FXCPU communication function extension board (MINI-DIN 8-pin connector) and GOT ✳The unit cannot be used with the FX1NC, FX2NC, FX3UC-D/DSS, FX3G.	–	–	–	●*5	–
		GT10-C[ ]R4-8PC	For connection between FXCPU (MINI-DIN 8-pin connector) and GOT For connection between FXCPU communication function extension board (MINI-DIN 8-pin connector) and GOT	–	–	–	●*5	–
RS-232 cable	Q/LCPU direct connection cable Data transfer cable	GT01-C[ ]R2-6P	For connection between Q/LCPU and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin)	●	●	●	●*4	–
			For connection between personal computer (screen design software) (D-sub 9-pin, female) and GOT (MINI-DIN 6-pin, male)	–	–	–	●*5	●
		GT10-C[ ]R2-6P	For connection between Q/LCPU and GOT For connection between GOT and GOT	–	–	–	●*5	–
		GT11H-C[ ]R2-6P	For connector conversion box between Q/LCPU and Handy GOT	–	–	–	–	●
	FX communication function extension board connection cable, FX communication function adapter connection cable, and data transfer cable	GT01-C[ ]R2-9S	For connection between FXCPU communication function extension board (D-sub 9-pin connector) and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin) For connection between FXCPU communication function adapter (D-sub 9-pin connector) and GOT For connection between personal computer (screen design software)(D-sub 9-pin, female) and GOT (D-sub 9-pin, female)	●	●	●	●*4	●*3
	FX communication function adapter connection cable	GT01-C[ ]R2-25P	For connection between FXCPU communication special adapter (D-sub 25-pin connector) and GOT/personal computer (GT SoftGOT1000) (D-sub 9-pin)	●	●	●	●*4	●*3
	Computer link connection cable	GT09-C[ ]R2-9P*1 GT09-C[ ]R2-25P*1	For connection between serial communication unit and GOT For connection between computer link unit and GOT For connection between AJ65BT-R2N and GOT (GT09-C[ ]R2-9P only)	●	●	●	●*4	●*3
Connector conversion box for Handy GOT		GT16H-CNB-42S	Converts Handy GOT connector to RJ-45 for terminal block, D-sub connector or Ethernet for each signal type	–	–	–	–	●*7
		GT11H-CNB-37S	Converts D-sub 37-pin connector to terminal block and D-sub 9-pin connector	–	–	–	–	●*8
External connection cable	FA device, power supply and operation switch connection cable	GT16H-C[ ]-42P	For connection between connector conversion box and Handy GOT	–	–	–	–	●*7
		GT16H-C[ ]-32P	For connection between CC-Link interface unit and Handy GOT	–	–	–	–	●*7
		GT11H-C[ ]-37P	For connection between FA device connection relay cable and GOT	–	–	–	–	●*8
		GT11H-C[ ]	For connection between FA device, power supply and operation switches and GOT	–	–	–	–	●*8
FA device connection relay cable	RS-422, power supply and operation switch connection cable	GT11H-C[ ]R4-8P	For connection between FXCPU and GOT For connection between power supply and operation switches and GOT	–	–	–	–	●*8
		GT11H-C[ ]R4-25P	For connection between A/QnACPU and GOT For connection between power supply and operation switches and GOT	–	–	–	–	●*8
	RS-232, power supply and operation switch connection cable	GT11H-C[ ]R2-6P	For connection between QCPU and GOT For connection between power supply and operation switches and GOT	–	–	–	–	●*8
Barcode reader connection cable		GT10-C[ ]H-6PT9P	For connection between barcode reader (D-sub 9-pin, male) and GOT (MINI-DIN 6-pin, male) RS-232	–	–	–	●*5	–

Model name length notes (column 3):
- GT01-C[ ]R4-25P / GT10-C[ ]R4-25P: [ ]: 30, 100, 200, 300
- GT09-C[ ]R4-6C*1: [ ]: 30, 100, 200, 300
- GT01-C[ ]R4-8P / GT10-C[ ]R4-8P: [ ]: 10, 30, 100, 200, 300
- GT10-C[ ]R4-8PL: [ ]: 10
- GT10-C[ ]R4-8PC: [ ]: 10, 30, 100, 200, 300
- GT01-C[ ]R2-6P / GT10-C[ ]R2-6P: [ ]: 30
- GT01-C[ ]R2-9S: [ ]: 30
- GT01-C[ ]R2-25P: [ ]: 30
- GT09-C[ ]R2-9P*1 / GT09-C[ ]R2-25P*1: [ ]: 30
- GT16H-C[ ]-42P: [ ]: 30, 60, 100
- GT16H-C[ ]-32P: [ ]: 30, 50, 80, 130
- GT11H-C[ ]-37P / GT11H-C[ ]: [ ]: 30, 60, 100
- GT11H-C[ ]R4-8P / GT11H-C[ ]R4-25P / GT11H-C[ ]R2-6P: [ ]: 15
- GT10-C[ ]H-6PT9P: [ ]: 02

Product name		Model name	Application	Applicable model				
				GT16	GT14	GT12	GT10	Handy GOT
Analog RGB cable		GT15-C[ ]VG*1 [ ]: 50	For connection between external monitor, personal computer and vision sensor and GOT	●	–	–	–	–
USB cable	RS-232/USB conversion adapter for data transfer	GT10-RS2TUSB-5S –	For connection between personal computer (USB) and GOT (RS-232) (Adapter and personal computer are connected with GT09-C30USB-5P.)	–	–	–	●*5	–
	Data transfer cable	GT09-C[ ]USB-5P*1 [ ]: 30	For connection between personal computer (USB) and GOT (USB Mini-B) For connection between QnUCPU (USB Mini-B) and personal computer (GT SoftGOT1000)	●	–	●	●*4	●
			For connection between printer and GOT (printer unit)	●	–	–	–	–
Extension USB waterproof cable		GT14-C[ ]EXUSB-4S [ ]: 10	For extending the USB port of GOT to the control panel	–	●	–	–	–
		GT10-C[ ]EXUSB-5S		–	–	–	●*4	–

∗1: The products listed are developed by Mitsubishi Electric System & Service Co., LTD. and sold through your local sales office.
∗2: Can be used when used together with the Handy GOT connector conversion box. GT01-C[ ]R4-25P, GT09-C[ ]R4-6C correspond only to 3m or 10m.
∗3: Can be used when used together with the Handy GOT connector conversion box. GT01-C[ ]R4-8P correspond only to 1m or 3m or 10m.
∗4: Can be used only with the GT105[ ] and GT104[ ].
∗5: Can be used only with the GT1030 and GT1020.
∗6: To connect with RS-422/485 interface of GT16 main unit, an RS-422 conversion cable (GT16-C[ ]R4-9S) is required.
∗7: Can be used only with the GT16 Handy.
∗8: Can be used only with the GT11 Handy.

For more information, please refer to the GOT1000 series catalog.
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ISO9001 and ISO14001 certified.

All of Mitsubishi Electric's FA component products have acquired the international quality assurance "ISO9001" and the environment management system standard "ISO14001" certification.

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>

Abbrev.	Name	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

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).

iQ Platform   CC-Link IE   MELSOFT

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