

Panasonic
ideas for life

GTseries

Programmable Display

GT01 GT01R GT11 GT21C GT32M/T

NEW

NEW

So real you'll want to touch it.



Panasonic

Programmable Display GT Series
ARCT1B279E '06.12

New

**Feel the sophisticated operability
through the touch panel.**



GT32M/GT32T Actual size

GTseries

Lineup of a variety of color types

GT21C

5 inch
320×240 dots
STN color LCD
256 colors
White LED backlight
Analog-touch panel
RS232C/RS422 (RS485)

GT32M

NEW

6 inch
320×240 dots
STN monochrome LCD (white/blue)
Long-life CFL backlight
Analog-touch panel
RS232C/RS422 (RS485)
USB
SD

GT32T

NEW

6 inch
320×240 dots
TFT color LCD
4096 colors
CFL backlight
Analog-touch panel
RS232C/RS422 (RS485)
USB
SD
Ethernet (for GT32T1)
Sound output (for GT32T1)



GT01

3 inch
128×64 dots
3-color LED backlight (green/orange/red)
Analog-touch panel
RS232C/RS422 (RS485)

GT01R

NEW

3 inch
128×64 dots
3-color LED backlight (white/red/pink)
Analog-touch panel
RS232C/RS422 (RS485)

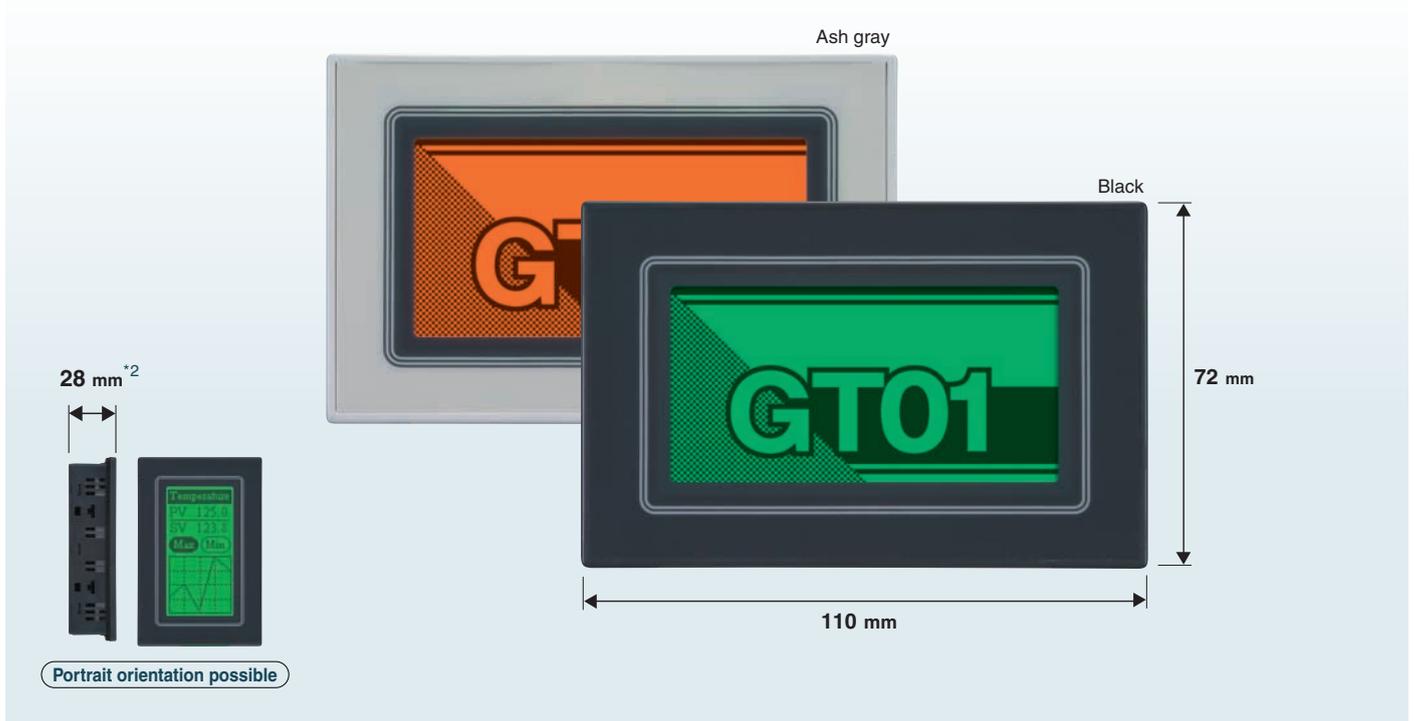
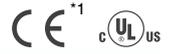
GT11

4 inch
240×96 dots
3-color LED backlight
(green/orange/red)
White LED backlight
Analog-touch panel
RS232C/RS422 (RS485)

Functions

	GT01	GT01R	GT11	GT21C	GT32M	GT32T0	GT32T1 (High-end)
Rated voltage	5V DC / 24V DC	5V DC / 24V DC	24V DC	24V DC	24V DC	24V DC	24V DC
Screen size	3 inch	3 inch	4 inch	5 inch	6 inch	6 inch	6 inch
Display device	STN monochrome LCD	STN monochrome LCD	STN monochrome LCD	STN color LCD	STN monochrome LCD	STN monochrome LCD	TFT color LCD
Display color	2 colors (black/white)	2 colors (black/white)	2 colors (black/white)	256 colors	2 colors (blue/white)	2 colors (blue/white)	4,096 colors
Resolution	128 (W)×64 (H) dots	128 (W)×64 (H) dots	240 (W)×96 (H) dots	320 (W)×240 (H) dots	320 (W)×240 (H) dots	320 (W)×240 (H) dots	320 (W)×240 (H) dots
Backlight	3-color LED (green/orange/red)	3-color LED (white/red/pink)	3-color LED (green/orange/red) / White LED	White LED	CFL	CFL	CFL
Displayable characters	72 characters	72 characters	216 characters	768 characters	768 characters	768 characters	768 characters
Memory capacity (F-ROM)	384 Kbyte	384 Kbyte	1.375 Mbyte	6.5 Mbyte	2,048 Kbyte	10,176 Kbyte	10,176 Kbyte
Serial port	RS232C / RS422 (RS485)	RS232C / RS422 (RS485)	RS232C / RS422 (RS485)	RS232C / RS422 (RS485)	RS232C / RS422 (RS485)	RS232C / RS422 (RS485)	RS232C / RS422 (RS485)
USB port	—	—	—	—	—	○	○
Ethernet	—	—	—	—	—	—	○
SD memory card	—	—	—	—	—	○	○
Sound output jack	—	—	—	—	—	—	○

Ultra compact size with all the features required for control panels



A variety of expressions clearly displayed in three colors

■ The highly visible three-color backlight shows the equipment status and enhances the equipment style.

The bright and easy-to-read LCD indicates messages, graphics, switches, lamps, PLC data, graphs, clocks*³, and others in any layout you want. In addition, three backlight colors can be selected according to the equipment status. This allows you to identify the status at a glance.

70% brighter
(than our conventional model) *⁴

Normal (Green)



In operation (Orange)



Emergency (Red)

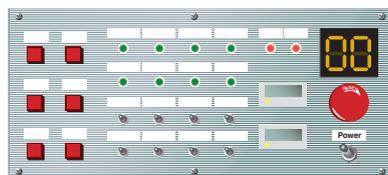


Cost and space saving (GT01/GT01R)

■ GT01 is a shortcut to cost reduction.

Total cost **1/5** *⁵

Eliminates the need for arranging many parts, securing a stock of parts, and wiring each switch.



Improves the design and operability

Easy to change the settings by model and user

■ There are two types of power supplies (5 V DC/24 V DC) and two types of communication [RS232C/RS422 (RS485)]. Connection with PLCs of a variety of manufacturers is possible.

(Please refer to the compatible PLC list.)

The 24 V RS422 type can be connected at a maximum distance of 500m.

3 inch monochrome	3-color backlight (white/red/pink)	12 chars. x6 lines	128x64 dots	Free switch layout (8-8 dots min.)	RS232C/RS422 (RS485)	Through function	5V DC/24V DC
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New face with a cool design and a full load of functions required for control panels



High-contrast clear display achieved by the red and white backlight

- Screens can be displayed in white, red, or pink. Under normal conditions, the high-brightness white LED provides outstanding visibility. The red LED allows you to check the status of abnormal conditions at a glance.

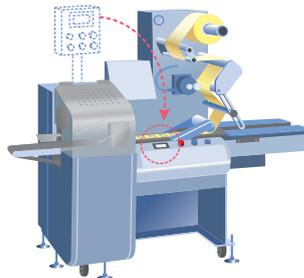
100% brighter
(than our conventional model)^{*6}



■ Can be mounted in small spaces.

The ultra-thin body with a depth of only 24 mm^{*2} fits in any space.

Can be mounted in any small space. The space saving control panel contributes to total cost reduction.



Only one cable is required to connect your GT directly to our **FP series** or Mitsubishi Electric **FX series**, substantially reducing the man-hours for wiring. (5 V DC type)

Only one cable is required because power is supplied through the TOOL port of the PLC.

*1: CE marking is not available to AIGT0032B1(H1), AIGT0232B1(H1).
 *2: When the panel thickness is 5 mm, the screw head of the mounting bracket protrudes 4 mm.
 *3: Refers to and displays external clock data. (Not provided with a built-in clock function.)
 • The panel face protection sheet for GT01/GT01R is available as an option.

*4: Compared with GT10.
 *5: Compared with our products. Not guaranteed in all cases.
 *6: Compared with GT01 White LED backlight.
 • For other features, please refer to GT01/GT01R/GT11 Common Features.

* For precautions for connection, please refer to "Connecting and Communicating with the PLCs" in GT Series Technical Manual, which can be downloaded from our website. (User registration is required.)

GT11

Compact Programmable Display

4 inch monochrome

3-color/ white backlight
(green/orange/red) white

24 chars. x9 lines

240x96 dots

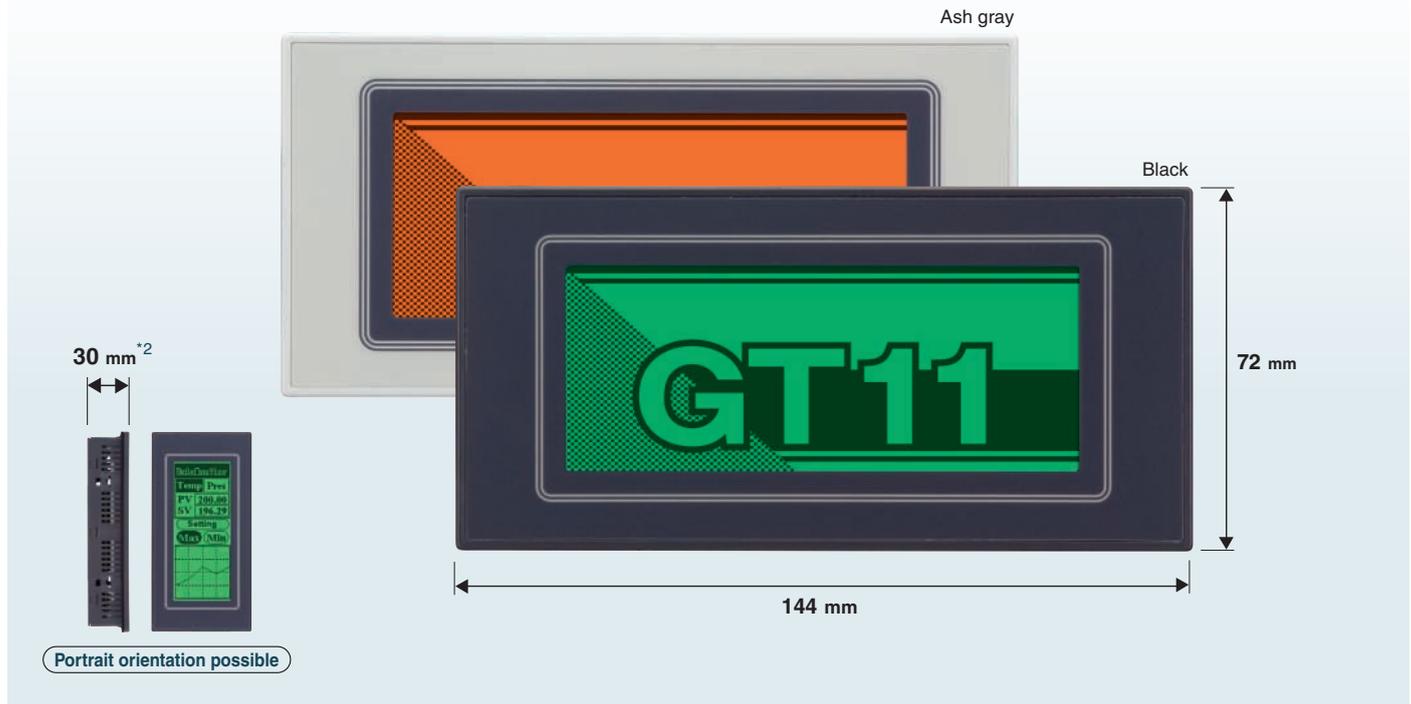
Free switch layout
(8x8 dots min.)

RS232C/
RS422
(RS485)

Through function

24V DC

The upgraded 4-inch wide screen provides clearer images with higher visibility.



4-inch wide screen high-definition LCD

The 4-inch wide screen consists of a high-definition LCD, which increases the information capacity.

Conventional model (GT10)

(Enlarged view)

160 dots (width), 64 dots (height)

GT11

(Enlarged view)

240 dots (width), 96 dots (height)

Resolution: 225%
240x96 dots
(Compared with our conventional model)*³

● Higher visibility

● Approx. doubled information capacity

The highly visible three-color backlight shows the equipment status and enhances the equipment style.

The bright and easy-to-read LCD indicates messages, graphics, switches, lamps, PLC data, graphs, clocks*4, and others in any layout you want. In addition, three backlight colors can be selected according to the equipment status. This allows you to identify the status at a glance.

70% brighter
(than our conventional model)*³



*Unit does not have a red LED.

Mountable in tight places

Costs can be reduced by using this model instead of a mid-size display.

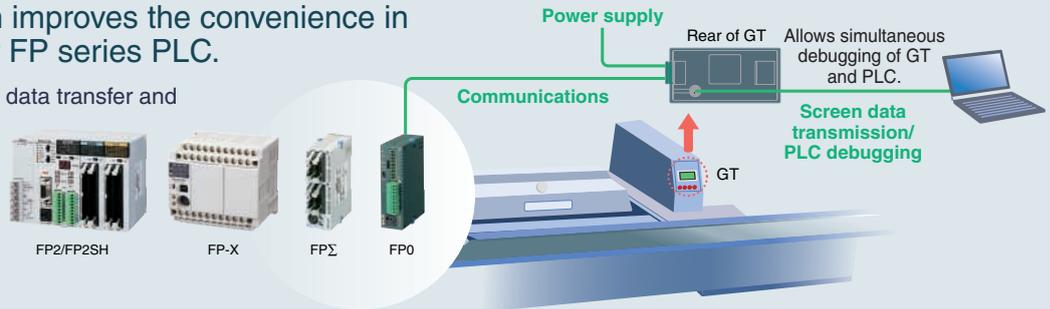
Compatible with our conventional GT10 model

Exchangeable since the panel cut dimensions are identical, and screen data exchange is also possible. *⁵

Simple connection and maintenance

- The through function improves the convenience in combination with our FP series PLC.

Simultaneous operation of GT data transfer and PLC debugging will be available by connecting your GT to a personal computer and our FP series PLC.



Great diversity and variety of use

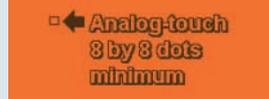
- A wide variety of display functions improve the workability for operators.

“TrueType fonts”



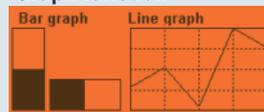
The use of a TrueType font allows GT11 to display up to 216 characters (24 wide x 9 high), GT01/GT01R to display up to 72 characters (12 wide x 6 high), improving the efficiency of use of the panel space.

“Analog-touch design”



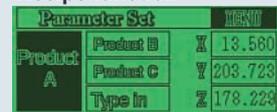
You can freely position switches as small as 8 x 8 dots.

“Graph function”



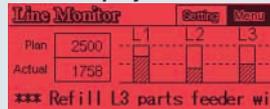
You can identify the production or operation status in line or bar graph form.

“Recipe function”



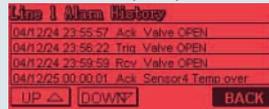
Settings by product item and other data (up to 3,600 words) can be transferred to PLC, simplifying PLC programming.

“Flow Display function”



A flowing message of up to 64 characters (two-byte) can be displayed at the bottom of the screen. (128 messages)

“Alarm list” (GT11)



Alarm activation, check, and recovery can be recorded and displayed.

“Write Device function”



This function writes the PLC values or turns bits on/off according to the PLC status or the screen No.

- The language switching function facilitates PLC programming and screen switching.

Conventionally, screens were created for each language. With this new language switching function, data can be entered in all available languages for each part. The same screens can be created all at once, and ladder diagram creation is also easier. The character table (below picture) for switching the language display can be edited in Excel and imported.

		Japanese	English	Simplified Chinese	Traditional Chinese	Korean
000	SW0	日本語	English	简体中文	繁體中文	한국어
000	SW0	ありがとうございました	Thank you	热烈欢迎	請多指教	안녕하
000	SW1	1	1	1	1	1
000	SW1	2	2	2	2	2

■ Available languages

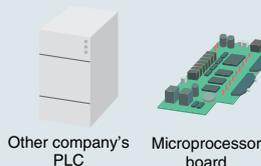


If your operating system is Windows 2000 or XP, the above languages can be displayed on one screen at a time. With other operating systems, the screen creation tool “Terminal GTWIN English Version” is required, and the operating system’s language must be the one you want to display.

- There are two types of communication [RS232C/RS422 (RS485)]. Connection with PLCs of a variety of manufacturers is possible.

(Please refer to the compatible PLC list.)

The RS422 type can be connected at a maximum distance of 500m.



Also supports connection with a PLC of another company or a microprocessor board.

- The high environmental resistance is IP65-rated.

- The backlight can be controlled via PLC.

For example, when a sensor detects a person, the display backlight can be turned by an instruction from a PLC.

- An original screen can be displayed for a specified period of time after startup.

- The use of high-brightness LEDs eliminated backlight replacement work.

*1: UL/cUL is not available to white LED backlight type.

*2: When the panel thickness is 5 mm, the screw head of the mounting bracket protrudes 4 mm.

*3: Compared with GT10.

*4: To use the internal clock function, buy a commercially available battery (CR2032).

*5: The mounting bracket and connector shape are different. When converting the screen data, the font size will not be automatically converted.

• The panel face protection sheet for GT11 is available as an option.

The 5-inch STN 256-color touch panel displays clear and beautiful images.



Beautiful

Beautiful images, Top quality images in small-sized panels

The new 3D-design buttons provide higher visibility and operability.

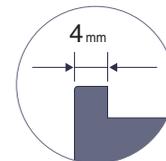


5-inch STN 256 colors QVGA

The image quality is equivalent to the 6-inch type display, which it can replace.

Cool and sophisticated body design

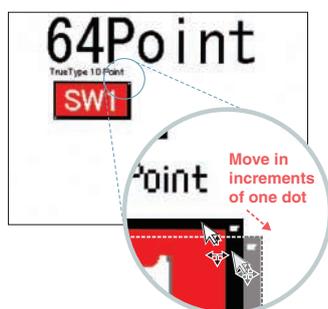
- The cool design fits a variety of installation locations without spoiling the design of the target equipment.
- The projection from the target equipment surface is as low as 4 mm, allowing for a beautiful finish.
- The total depth is the industry's lowest at 29.9 mm (excluding the projection).



Simple

High operability achieved by the customizable screen layout

- The analog-touch design allows you to freely adjust the screen layout in increments of one dot. You can also freely choose
- TrueType font character sizes and arrangement



Useful

Maintenance-free white LED backlight

- The use of the white LED backlight eliminated backlight replacement work.

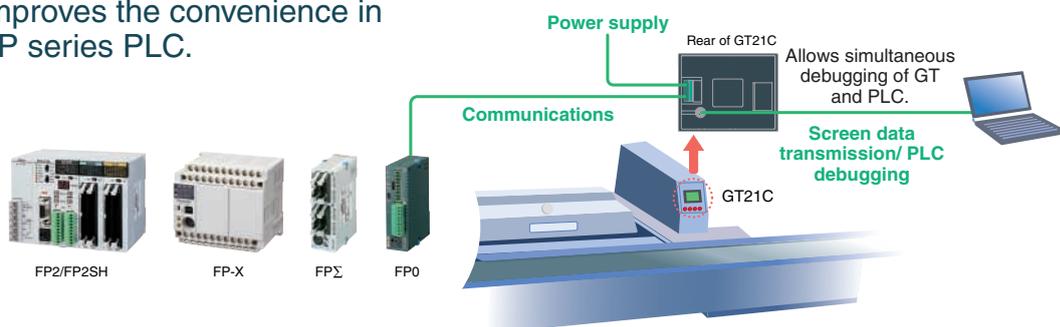
Environmentally friendly lower power consumption design

- Lower power consumption of 4.8 W or less: Approx. 50% of our conventional model (GT30)

Simple connection and maintenance

- The through function improves the convenience in combination with our FP series PLC.

Simultaneous operation of GT data transfer and PLC debugging will be available by connecting your GT to a personal computer and our FP series PLC.



Great diversity and variety of use

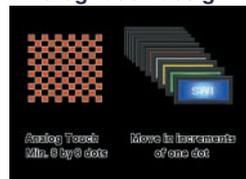
- The 5-inch screen provides a wide variety of display functions that improve the workability for operators.

“TrueType fonts”



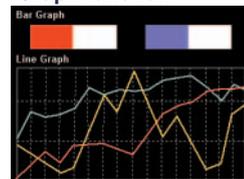
With the TrueType fonts, the screen can display up to 768 characters at a time (32 chars. x 24 lines) and therefore be used effectively.

“Analog-touch design”



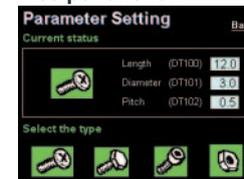
You can freely position switches as small as 8 x 8 dots.

“Graph function”



You can identify the production or operation status in line or bar graph form.

“Recipe function”



Settings by product item and other data (up to 3,600 words) can be transferred to PLC, simplifying PLC programming.

“Flow Display function”



A flowing message of up to 64 characters (two-byte) can be displayed at the bottom of the screen. (128 messages)

“Alarm list”



Alarm activation, check, and recovery can be recorded and displayed.

“Write Device function”



This function writes the PLC values or turns bits on/off according to the PLC status or the screen No.

- The language switching function facilitates PLC programming and screen switching.

Conventionally, screens were created for each language. With this new language switching function, data can be entered in all available languages for each part. The same screens can be created all at once, and ladder diagram creation is also easier. The character table (below picture) for switching the language display can be edited in Excel and imported.

	Japanese	English	Simplified Chinese	Traditional Chinese	Korean
000 Sw0	日本語	English	简体中国語	繁體中國語	한국어
000 Sw0	ありがとうございました	Thank you	热烈欢迎	請多指教	안녕하
000 Sw1	1	1	1	1	1
000 Sw1	2	2	2	2	2

Available languages



If your operating system is Windows 2000 or XP, the above languages can be displayed on one screen at a time. With other operating systems, the screen creation tool “Terminal GTWIN English Version” is required, and the operating system’s language must be the one you want to display.

- There are two types of communication [RS232C/RS422 (RS485)]. Connection with PLCs of a variety of manufacturers is possible.

(Please refer to the compatible PLC list.)

The 24-V RS422 type can be connected at a maximum distance of 500m.

*1: Note that the COM port connector projects 7 mm. Also take the cable diameter into account.

- The panel face protection sheet for GT21C is available as an option.
- To use the internal clock function, buy a commercially available battery (CR2032).

- The high environmental resistance is IP65-rated.

- An original screen can be displayed for a specified period of time after startup.

GT32M

Programmable Display

6-inch
monochrome

2 colors
(white/blue)

CFL
backlight

32 chars.
×24 lines

320×240
dots

Free switch
layout
(8×8 dots min.)

RS232C/
RS422
(RS485)

USB

SD

Through
function

24V DC

Clear and beautiful display achieved by the high-definition long-life CFL backlight



The industry's smallest size in the 5-inch class, and 39.1-mm thin and cool body design (GT32M/GT32T)

■ Large display with space-saving outer dimensions of 163.2 x 128.8 x 39.1 mm

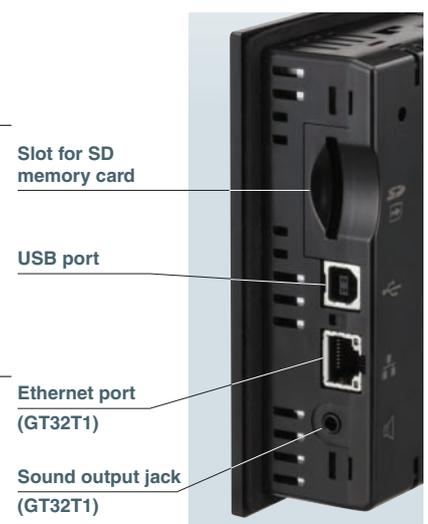
SD memory card slot as standard equipment (1 GB max) (GT32M/GT32T)

■ Easy to copy screen data. Also serves as storage for output sound files.

USB interface as standard equipment (GT32M/GT32T)

■ You can connect your PC and GT32 using your USB cable*2 to transfer screen data.

Also supports the "through" function for our FP series PLC.



Transformer-isolated power supply (GT32M/GT32T)

■ The isolated power supply enhances the reliability.

*1: Compared with GT30.

*2: Please use a commercially available AB type USB cable.

• GTWIN Ver. 2.8 or later is required to use GT32.
• The GT32M cannot display gradations.

GT32T

Programmable Display

6-inch color	TFT 4,096 colors	CFL backlight	32 chars. x24 lines	320x240 dots	Free switch layout (8x8 dots min.)	RS232C/RS422 (RS485)	USB	SD	Ethernet (GT32T1)	Sound output (GT32T1)	Through function	24V DC
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More beautiful and expressive 4,096-color TFT LCD

4,096-color
256 times
(Compared with our conventional model)*1

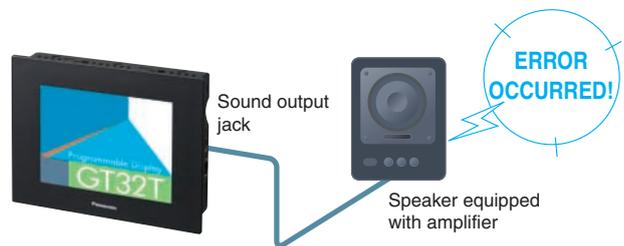


GT32T equipped with 4096-color TFT display and GT32M equipped with high-brightness long-life backlight

- The TFT color type and monochrome type are available in the same size. GT32T0/GT32T1 is ideal for use with upscale equipment models or color-coded operation instructions. GT32M is ideal for equipment that needs to be simple, such as in-house equipment.

Sound output function (GT32T1)

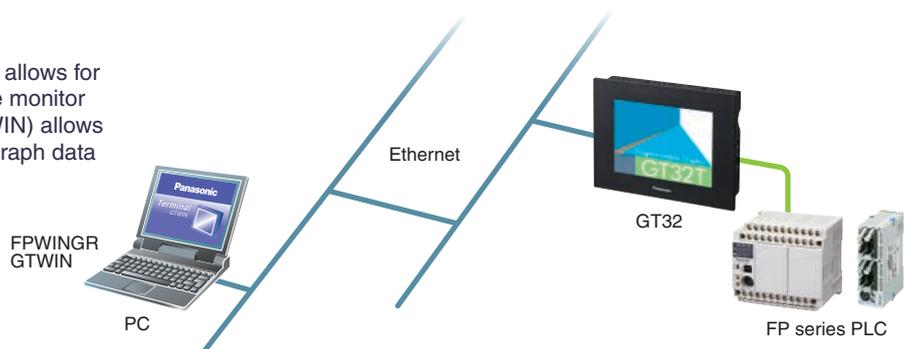
- Audio information as well as visual and tactile information allows for more reliable control by operators.



Ethernet connection (GT32T1)

- GT32T1 supports Ethernet connection, allowing for the “through” function for our FP series PLC in a remote location.

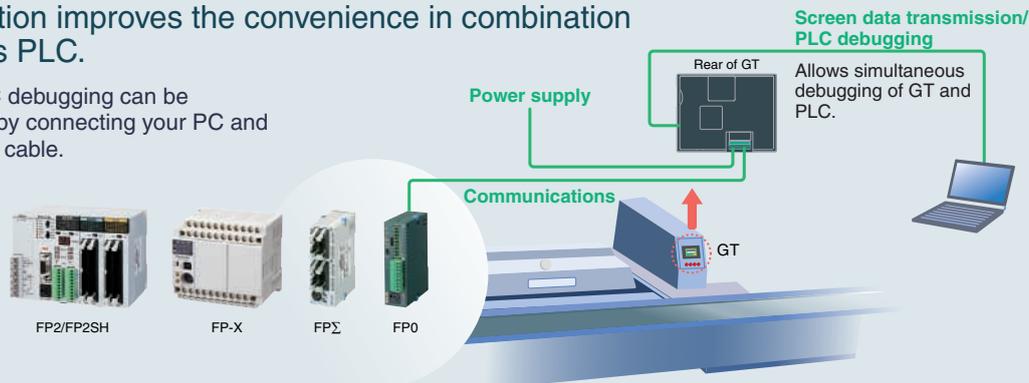
GT32T1 supports Ethernet connection, which allows for program transfer to FP series and enables the monitor function. GT Memory Editor (attached to GTWIN) allows you to make alarm record data files and line graph data files, and edit internal memory.



Simple connection and maintenance

- The through function improves the convenience in combination with our FP series PLC.

GT data transfer and PLC debugging can be simultaneously executed by connecting your PC and GT with an Ethernet/USB cable.



Great diversity and variety of use

- The 6-inch screen provides a wide variety of display functions that improve the workability for operators.

“TrueType fonts”



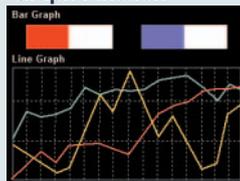
With the TrueType fonts, the screen can display up to 768 characters at a time (32 chars. x 24 lines) and therefore be used effectively.

“Analog-touch design”



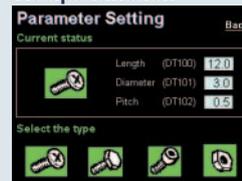
You can freely position switches as small as 8 x 8 dots.

“Graph function”



You can identify the production or operation status in line or bar graph form.

“Recipe function”



Settings by product item and other data (up to 3,600 words) can be transferred to PLC, simplifying PLC programming.

“Flow Display function”



A flowing message of up to 64 characters (two-byte) can be displayed at the bottom of the screen. (128 messages)

“Alarm list”



Alarm activation, check, and recovery can be recorded and displayed.

“Write Device function”



This function writes the PLC values or turns bits on/off according to the PLC status or the screen No.

- The language switching function facilitates PLC programming and screen switching.

Conventionally, screens were created for each language. With this new language switching function, data can be entered in all available languages for each part. The same screens can be created all at once, and ladder diagram creation is also easier. The character table (below picture) for switching the language display can be edited in Excel and imported.

	Japanese	English	Simplified Chinese	Traditional Chinese	Korean
000 SW0	日本語	English	简体中国語	繁體中國語	한국어
000 SW0	ありがとうございます	Thank you	热烈欢迎	請多指教	안녕하
000 SW1	1	1	1	1	1
000 SW1	2	2	2	2	2

■ Available languages

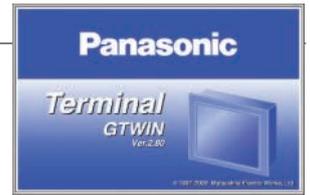


- There are two types of communication [RS232C/RS422 (RS485)]. Connection with PLCs of a variety of manufacturers is possible. (Please refer to the compatible PLC list.)

The RS422 type can be connected at a maximum distance of 500m.

• The panel face protection sheet for GT32 is available as an option.
 • To use the internal clock function, buy the dedicated battery (AFPX-BATT).

The user-friendly interface makes screen creation easier.



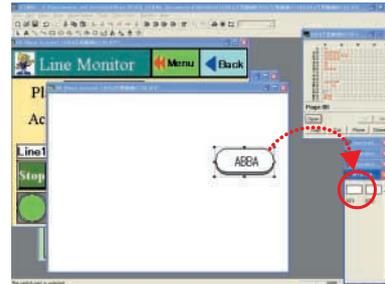
■ Multilingual menu screen

The menu can be indicated in Japanese/English/simplified Chinese/German/Italian/Spanish.



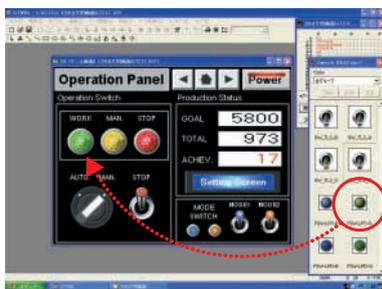
■ Just drag and drop your original parts to be registered.

You can also register your preset original parts easily by drag-and-drop operations.



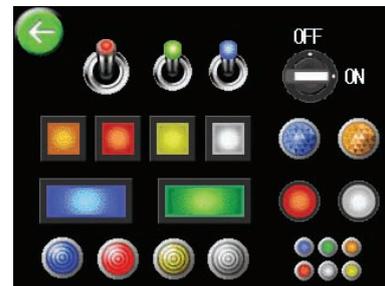
■ Simply drag and drop parts.

You can easily create screens by just dragging parts from the library and dropping them anywhere you want.



■ 256-color 3D buttons (for GT21C/GT32T)

3D-design buttons with higher visibility and operability are available.



■ More user-friendly parts libraries

In the previous version, the required parts library had to be selected from the menu every time it was needed. The new version displays a list of parts libraries, making them more user-friendly.



■ Screen copy in bitmap form

You can output screen images in bitmap form and use them in off-the-shelf applications. This is useful for preparing equipment operation manuals.

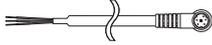
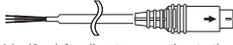
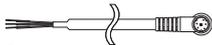
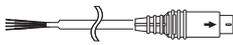
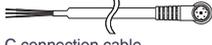
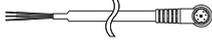
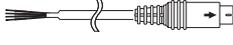
■ Firmware upgrading function (GT01/GT11/GT21C/GT32)

Before transferring screen data, tick "Automatic firmware update" to automatically upgrade the display if the display version is older than the firmware version in GTWIN.

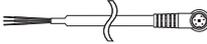
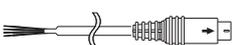
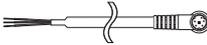
You can keep the firmware version upgraded by using the latest version of GTWIN.

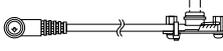
• GTWIN Ver. 2.8 is not compatible with Windows® 95, 98, Me or NT. For details, please contact our sales office.

You can download a trial version of GTWIN Ver. 2 from Automation Controls Business Unit Website.
(Login as Web Members is required.)

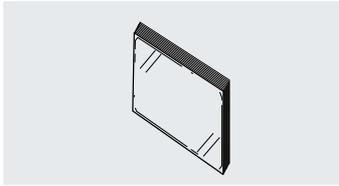
Model	Rated voltage	Communication port	Part No.				PLC connection cable
			GT01 Black	GT01R Pure black	GT01 Ash gray	GT01R Hairline silver	
GT01 (green/ orange/red)/ GT01R (white/red/ pink)	5V DC	RS232C	 Part No.: AIGT0030B1	 Part No.: AIGT0230B1	 Part No.: AIGT0030H1	 Part No.: AIGT0230H1	 Cable (2 m) for direct connection to the TOOL port of our PLC 5-pin mini-DIN connector — 4 single wires + Shielding wire Part No.: AIGT8142 Note: This cable is for GT01/GT01R, and power is supplied through the TOOL port.
		RS422 (RS485)	 Part No.: AIGT0032B1	 Part No.: AIGT0232B1	 Part No.: AIGT0032H1	 Part No.: AIGT0232H1	 Cable (2 m) for direct connection to the Mitsubishi Electric FX Series 8-pin mini-DIN connector — 6 single wires + Shielding wire Part No.: AIGT8152 Note: This cable is for GT01/GT01R, and power is supplied through the TOOL port.
	24V DC	RS232C	 Part No.: AIGT0030B	 Part No.: AIGT0230B	 Part No.: AIGT0030H	 Part No.: AIGT0230H	 PLC connection cable 5-pin mini-DIN connector — 3 single wires + Shielding wire Part No.: AIGT8162 (2 m) AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
		RS422 (RS485)	 Part No.: AIGT0032B	 Part No.: AIGT0232B	 Part No.: AIGT0032H	 Part No.: AIGT0232H	 PLC connection cable (5 m) 8-pin mini-DIN connector — 4 single wires + Shielding wire Part No.: AIGT8175
GT11 (green/ orange/red)/ GT11R (white)	24V DC	RS232C	 Part No.: AIGT2030B	 Part No.: AIGT2130B	 Part No.: AIGT2030H	 Part No.: AIGT2130H	 PLC connection cable 5-pin mini-DIN connector — 3 single wires + Shielding wire Part No.: AIGT8162 (2 m) AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
		RS422 (RS485)	 Part No.: AIGT2032B	 Part No.: AIGT2132B	 Part No.: AIGT2032H	 Part No.: AIGT2132H	 PLC connection cable (5 m) 8-pin mini-DIN connector — 4 single wires + Shielding wire Part No.: AIGT8175
GT21C (STN color)	24V DC	RS232C	Pure black		Hairline silver		 PLC connection cable (2 m) 5-pin mini-DIN connector — 3 single wires + Shielding wire Part No.: AIGT8162 AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
			 Part No.: AIGT2230B	 Part No.: AIGT2230H			
		RS422 (RS485)	Pure black		Hairline silver		 PLC connection cable (5 m) 8-pin mini-DIN connector — 4 single wires + Shielding wire Part No.: AIGT8175
			 Part No.: AIGT2232B	 Part No.: AIGT2232H			
GT32M (STN monochrome)	24V DC	RS232C	Pure black		Hairline silver		 PLC connection cable (2 m) 5-pin mini-DIN connector — 3 single wires + Shielding wire Part No.: AIGT8162 AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
			 Part No.: AIG32MQ02D	 Part No.: AIG32MQ03D			
		RS422 (RS485)	Pure black		Hairline silver		 PLC connection cable (5 m) 8-pin mini-DIN connector — 4 single wires + Shielding wire Part No.: AIGT8175
			 Part No.: AIG32MQ04D	 Part No.: AIG32MQ05D			

For connection, refer to the GT Series Technical Manual.

Model	Rated voltage	Communication port	Part No.		PLC connection cable
			Pure black	Silver	
GT32T0 (TFT color)	24V DC	RS232C	 Part No.: AIG32TQ02D	 Part No.: AIG32TQ03D	 PLC connection cable (2 m) 5-pin mini-DIN connector — 3 single wires + Shielding wire Part No.: AIGT8162 AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
		RS422 (RS485)	 Part No.: AIG32TQ04D	 Part No.: AIG32TQ05D	 PLC connection cable (5 m) 8-pin mini-DIN connector — 4 single wires + Shielding wire Part No.: AIGT8175
GT32T1 (TFT color) (Ethernet and sound output function supported)		RS232C	 Part No.: AIG32TQ12D	 Part No.: AIG32TQ13D	 PLC connection cable (2 m) 5-pin mini-DIN connector — 3 single wires + Shielding wire Part No.: AIGT8162 AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
		RS422 (RS485)	 Part No.: AIG32TQ14D	 Part No.: AIG32TQ15D	 PLC connection cable (5 m) 8-pin mini-DIN connector — 4 single wires + Shielding wire Part No.: AIGT8175

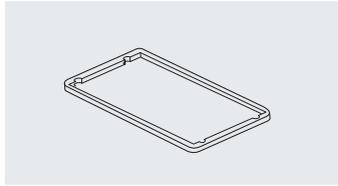
Screen data transmission cable (for DOS/V computers)	Terminal GTWIN Ver.2
 <p>9-pin D-SUB connector — 5-pin mini-DIN connector (L type: 3 m) Part No.: AFC8503</p>  <p>9-pin D-SUB connector — 5-pin mini-DIN connector (Straight type: 3 m) Part No.: AFC8503S</p>	   <p>English Version Tool Kit includes: GTWIN CD-ROM GT Series Technical Manual (English Version) Part No.: AIGT8001V2</p> <p>Upgrade Version (English) Upgrades Terminal GTWIN Ver. 1 to Ver. 2. Part No.: AIGT8001V2R</p>
<p>Tool port panel extension cable</p>  <p>Part No.: AFC8532</p> 	<p>* Menus can be displayed in Japanese, English, Simplified Chinese, German, Italian, and Spanish. • GTWIN Ver. 2.8 is not compatible with Windows® 95, 98, Me or NT. For details, please contact our sales office.</p>

Options



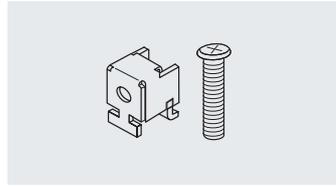
■ **Panel face protection sheets**
10 sheets in a set (option)

GT01	Part No.:	AIGT080
GT01R	Part No.:	AIGT080R
GT11	Part No.:	AIGT280
GT21	Part No.:	AIGT28021
GT32	Part No.:	AIG32800



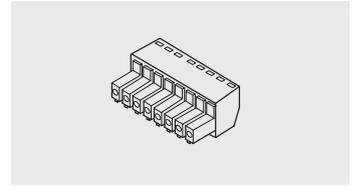
■ **Waterproof packing**
Waterproof packing (for replacement), 10 pieces in a set
Package includes one set. One set is installed on main unit.

GT01, GT01R	Part No.:	AIGT081
GT11	Part No.:	AIGT281
GT21	Part No.:	AIGT28121
GT32	Part No.:	AIG32810



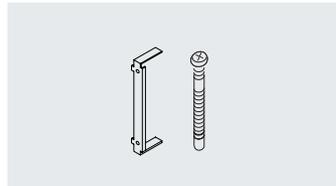
■ **GT01/GT01R/GT11 mounting parts**
5 sets of mounting parts (4 parts/set)
Package includes one set.

Part No.:	AIGT083
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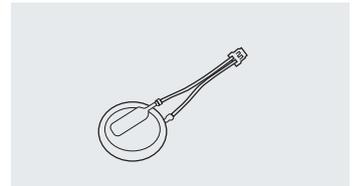
■ **Spare connector**
COM. port connectors, 5 connectors in a set
One piece is installed on main unit.

Part No.:	AIGT084
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■ **GT21C/GT32 mounting parts**
5 sets of GT21C/GT32 mounting parts (2 parts/set)
Package includes one set.

Part No.:	AIGT28321
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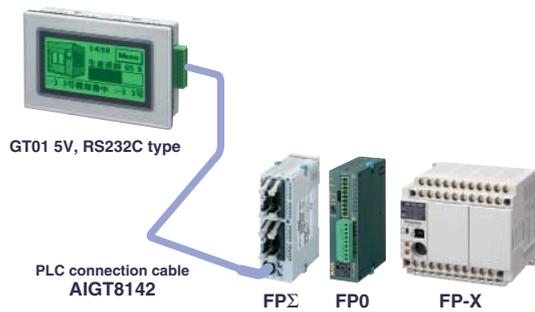


■ **GT32 backup battery**
* For GT11 and GT21C, please purchase a commercially available CR2032 battery.

Part No.:	AFPX-BATT
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Connection examples

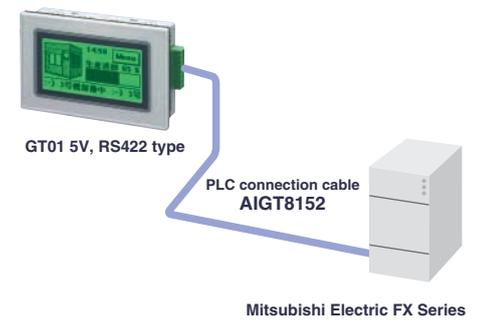
1. Connection with FPΣ/FP0



2. Distant connection with FPΣ



3. Connection with Mitsubishi Electric FX Series



PLC Compatibility

Models listed are the models that have been evaluated as of November, 2006.

Company	Series	Model	GT01/GT01R/GT11/GT21/GT32		
			RS232C type	RS422 (RS485) type*2	
Matsushita Electric Works	FP series	FP-X	○	○	
		FP-Σ	○	○	
		FP-e	○	○	
		FP0	○	○	
		FP2	○	○	
		FP2SH	○	○	
Mitsubishi Electric*1	FX series	FX0N	○	○	
		FX1S	○	○	
		FX1N	○	○	
		FX1NC	○	○	
		FX2N	○	○	
		FX2NC	○	○	
		FX3UC	○	○	
	Q series	Q00CPU	○	○	
		Q01CPU	○	○	
		Q00JCPU	○	○	
		Q01CPU	○	○	
		Q00HCPU	○	○	
		Q25HCPU	○	○	
		Q12HCPU	○	○	
	A series	Q06HCPU	○	○	
		Q02HCPU	○	○	
		Q02CPU	○	○	
		A1N	○	○	
		A2N	○	○	
		A3N	○	○	
		A1S	○	○	
		A1SJ	○	○	
		A2SH	○	○	
		A1SH	○	○	
	A2CCPU24	○	○		
	Omron*1	C series	C200H	○	○
			C200HS	○	○
C500			○	○	
C500F			○	○	
C1000H			○	○	
C2000			○	○	
C2000H			○	○	
C1000HF			○	○	
C20H			○	○	
C28H			○	○	
C40H			○	○	
C120			○	○	
C120F			○	○	
CQM1-CPU42			○	○	
SRM1-C02			○	○	
CPM2A			○	○	
CPM1-20CDR-A		○	○		
CQM1H-CPU21		○	○		
CPM2C		○	○		
CPM2B		○	○		
α series		C200HX-CPU85-Z	○	○	
		C200HX-CPU64	○	○	
		C200HX-CPU44	○	○	
	C200HE-CPU42	○	○		
	C200HG-CPU63	○	○		
	C200HG-CPU43	○	○		
	C200HE-CPU42-Z	○	○		
C200HX-CPU64-Z	○	○			

Company	Series	Model	GT01/GT01R/GT11/GT21/GT32	
			RS232C type	RS422 (RS485) type*2
Omron*1	CV series	CV500	○	○
		CV1000	○	○
		CVM1	○	○
	CS1 series	CS1H-CPU67	○	○
		S1H-CPU66	○	○
		CS1H-CPU65	○	○
		CS1H-CPU64	○	○
		CS1H-CPU63	○	○
		CS1G-CPU45	○	○
		CS1G-CPU44	○	○
		CS1G-CPU43	○	○
	CJ1 series	CJ1H	○	○
		CJ1M	○	○
		CJ1G	○	○
CP1 series	CP1H	○	○	
Toshiba Machine*1	TC mini series		○	○
Yokogawa Electric*1	FA-M3 series	F3SP59-7S	○	○
		F3SP58-6S	○	○
		F3SP58-6H	○	○
		F3SP53-4S	○	○
		F3SP53-4H	○	○
		F3SP38-6S	○	○
		F3SP38-6N	○	○
		F3SP35-5N	○	○
		F3SP28-3S	○	○
		F3SP28-3N	○	○
		F3SP25-2N	○	○
		F3SP21-0N	○	○
KEYENCE*1	KV series	KV-10/16/24/40	○	○
		KV-700	○	○
		KV-1000	○	○
ALLEN-BRADLEY*1 Models that support DF protocol	MicroLogix series	MicroLogix1000	○	○
	SLC-5 series	SLC-5/03	○	○
Siemens*1	S7-200 series	CPU222	○	○
		CPU216	○	○
		CPU215	○	○
		CPU214	○	○
		CPU212	○	○
LG*1	MASTER-K series	80S	○	○
		200S	○	○
		300S	○	○
		1000S	○	○
Modbus*1	Models that support RTU protocol	*3	○	○
General-purpose serial*1	MEW dedicated protocol	*3	○	○

*1. PLCs other than Matsushita Electric Works FP series may be limited in the type of device that can be used and addresses. Please see manual for details.

*2. Communication may not be possible when using RS485 depending on the sending and receiving timing with the other device.

*3. We cannot specify what other device you should use; therefore, please test it using the actual equipment before using.

○: Direct connection is possible to the CPU unit of the PLC.

○: Connection is possible using the communications unit or a signal conversion cable, etc.

(Example: The QJ71C24N or QJ71C24N-R2 calculator link unit is required when using the Mitsubishi Q Series.)

×: Connection is not possible

Blank: Not evaluated.

For details about devices and addresses that can be used, please refer to the GT Series Technical Manual "Connecting and Communicating with the PLCs". This manual can be downloaded from our site at <http://www.mew.co.jp/ac/el/>. (User registration is required before you can download.)

Specifications

Item	GT01 / GT01R				GT11		GT21C		GT32M		GT32T0		GT32T1		
	5V/RS232C	5V/RS422	24V/RS232C	24V/RS422	RS232C	RS422	RS232C	RS422	RS232C	RS422	RS232C	RS422	RS232C	RS422	
Rated voltage	5 V DC				24 V DC										
Operating voltage range	4.5 to 5.5 V DC				21.6 to 26.4 V DC										
Power consumption	1W max.	1.1W max.	2W max.		2.4W max.		4.8W max.		10W max.				12W max.		
Power supply unit isolation method	Transformer isolation														
Ambient temperature	0 to 50°C				0 to 50°C		0 to 50°C*1		0 to 50°C*2						
Ambient humidity	20 to 85% RH (No dew condensation)														
Storage temperature	-20 to 60°C														
Storage humidity	10 to 85% RH (No dew condensation)														
Vibration resistance	10 to 55 Hz (1-minute cycle): Double amplitude: 0.75 mm, 10 minutes in each of the X, Y, and Z directions														
Shock resistance	98 m/s ² min: 4 times in each of the X, Y, and Z directions														
Superposed noise suppression	1,000 V [P-P] min, pulse width of 50 ns, 1 μs between power supply terminals (by a noise simulator) *AIGT0030B1/AIGT0030H1: When the ferrite device supplied with our PLC connection cable (AIGT8142) is mounted														
Environmental resistance	IP65 (in the initial stages) Dust-proof and drip-proof from the front of the panel only (Rubber packing is attached to the panel contact surface.) *When reattaching the panel, replace the waterproof packing.														
Mass	Approx. 160 g				Approx. 230 g		Approx. 330 g		Approx. 500 g		Approx. 470 g		Approx. 480 g		
Display	Display device	STN monochrome LCD				STN monochrome LCD		STN color LCD		STN monochrome LCD		TFT color LCD			
	Resolution	128 (W) x 64 (H) dots				240 (W) x 96 (H) dots		320 (W) x 240 (H) dots							
	Display color	2 colors (black/white)				2 colors (black/white)		256 colors		2 colors (blue/white)		4,096 colors			
	Displayable area	70.38 (W) x 35.18 (H) mm				96.0 (W) x 38.4 (H) mm		98.0 (W) x 74.0 (H) mm		113.2 (W) x 86.4 (H) mm		110.8 (W) x 83.6 (H) mm			
	Backlight	GT01: 3-color LED (green, orange, red) GT01R: 3-color LED (white, red, pink) *No need for replacement				3-color LED (green, orange, red) /White LED *No need for replacement		White LED backlight *No need for replacement		CFL [Average life; GT32M: 75,000 hours (25°C), GT32T: 50,000 hours (25°C)]					
Functions	Font types	Fixed (GTWIN) : 8 x 8, 16 x 8, and 16 x 16 dots Characters can be displayed in the 1, 2, 4, or 8 times width or height. TrueType (GTWIN): 10, 12, 14, 16, 24, 26, 28, 32, 36, 48, and 64 Windows (R): 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 32, 36, 48, and 64													
	Languages	Japanese, English, Korean, German, French, Spanish, Italian, Simplified Chinese, Traditional Chinese, Turkish													
	Graphics	Straight lines, continuous straight lines, squares, circles, ovals, arcs, elliptical arcs, fan shapes, elliptical fan shapes, beveled squares, bitmaps													
	Number of screens	Approx. 160 screens*3				Approx. 250 screens*3				Approx. 240 screens (GT32M)*3		Approx. 180 screens (GT32T)*3			
	Screen No. that can be set	Base screens: No. 0 to 3FF, Keyboard screens: No. 0 to 7													
	Part functions	Messages, lamps, switches, data, bar graphs, clocks (*), keyboards, and line graphs				Messages, lamps, switches, data, bar graphs, clocks, keyboards, line graphs, and alarm list parts									
	Other functions	Recipe, flow display, write device, and language switching				Recipe, flow display, write device, alarm record, alarm list, and language switching								Sound output *4	
	Clock function	Refers to and displays external clock data. (Not provided with a built-in clock function.)				Provided with a built-in clock function. (Can also refer to and display a PLC clock.) *Buy a commercially available battery.									
	Contrast adjustment	Contrast can be adjusted by using the touch panel.										Not adjustable			
	Automatic communication settings	The communication conditions of dedicated software and PLC can be automatically set by connecting a cable.													
Debugging function	GT connected between a PC and PLC allows the PLC to be debugged without a direct connection with the PC.														
Screen creation	Dedicated software should be used. Applicable OS: Windows® 95 (OSR2 or later)/98/Me/2000/NT/XP										2000/XP				
Touch key resolution	Free layout (8 dots min)														
Touch key operation force	0.5 N max				0.5 N max				0.8 N max.						
Touch key life	1 million operations min														
COM. Port	Communication standard	Conforms to RS232C	Conforms to RS422	Conforms to RS232C	Conforms to RS422	Conforms to RS232C	Conforms to RS422	Conforms to RS232C	Conforms to RS422	Conforms to RS232C	Conforms to RS422	Conforms to RS232C	Conforms to RS422	Conforms to RS232C	Conforms to RS422
	External communication conditions	Baud rate: 9,600/19,200/38,400/57,600/115,200 bps Data bits: 7 or 8 bits Parity: None, Odd, Even Stop bits: 1 bit													
	Protocol	Our FP series supported/General-purpose serial interface supported/Other companies' PLC supported (Refer to the compatible PLC list for manufacturers and models.)													
	Connector	Connector terminal base (8 pins)													
Screen data transfer interface	Communication standard	Tool port (Conforms to RS232C)								USB1.1					
	Communication conditions with personal computers	Baud rate: 9,600/19,200/115,200/230,400 bps*5 Data bits: 8 bits Parity: None, Odd, Even Stop bits: 1 bit								-					
	Protocol	Our dedicated protocol													
	Connector	5-pin mini-DIN								USB TYPE-B					
Ethernet port	-														
											Yes (100BASE-TX, 10BASE-T) *6, *7				

*1. When the unit is being installed in a horizontal orientation or FP programmer II is being connected to the TOOL port, the usable range is 0 to +45°C.

*2. When the unit is being installed in a horizontal orientation, the usable range is 0 to +40°C.

*3. The number of screens that can be registered varies according to the registered contents.

*4. WAV format (PCM, 8-KHz sampling rate, 16 bits, mono), Maximum sound data capacity: 512 KB (approx. 30 sec), Maximum registrable number of sound data items: 128

*5. A USB/RS232C conversion cable should be used to achieve a communication speed of 230,400 bps.

When the TOOL port of GT is set to 230,400 bps, the auto communication setting function of GTWIN cannot be used. Set the communication speed to 230,400 bps on GTWIN before transferring data.

*6. The unit carries out serial communication data processing at 115.2kbits/s.

*7. Communications with external equipment (PLC) are not available.

*8. Simultaneous USB and Ethernet communications are not possible.

Conformance to the UL/cUL standards

UL/cUL file No.	E96300	UL Standard No.	UL508
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Memory

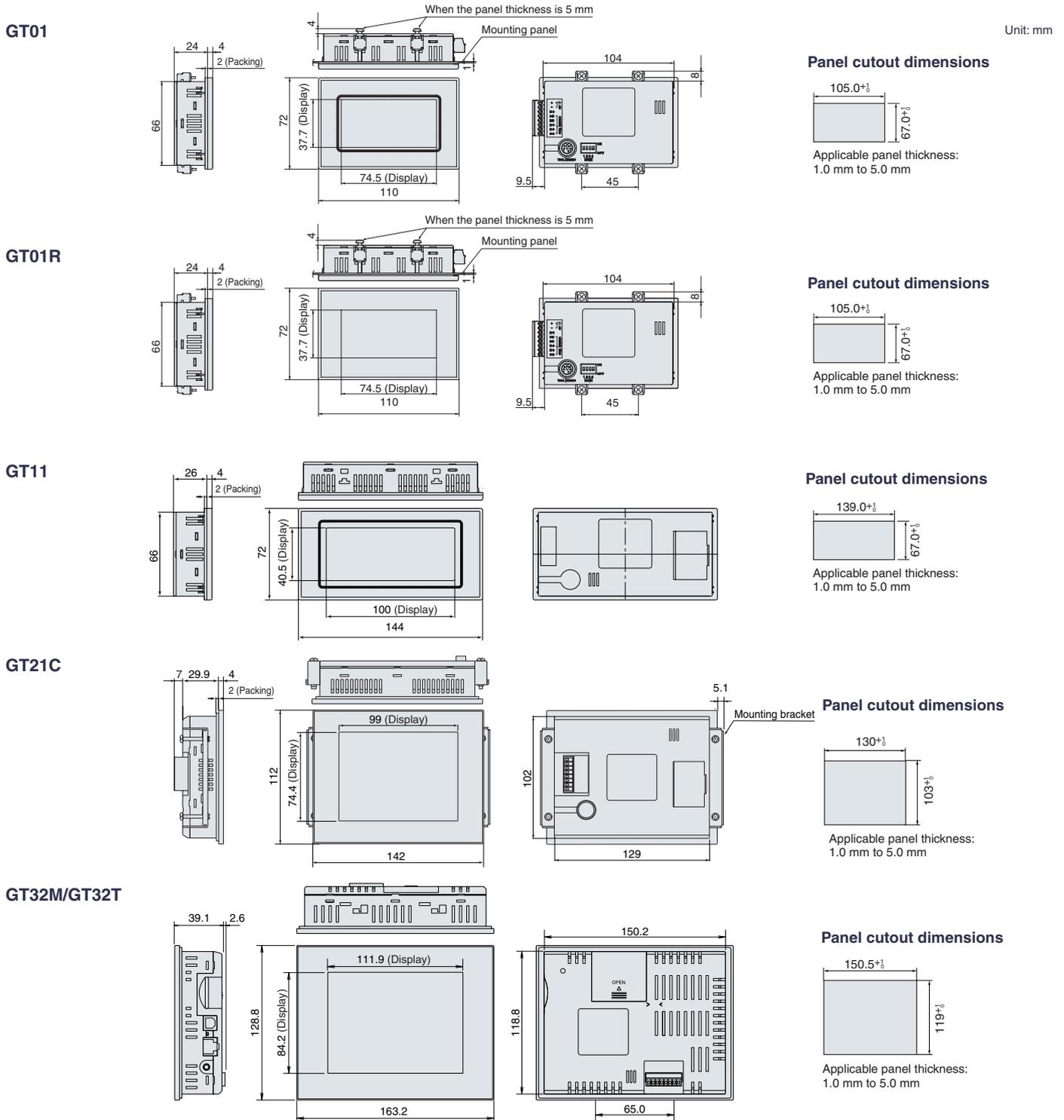
Screen data and GTWIN configuration setting data

Item	GT01/GT01R	GT11	GT21C	GT32M	GT32T
User's memory	F-ROM	F-ROM	F-ROM	F-ROM	F-ROM
Memory capacity	384 Kbyte	1.375 Mbyte	6.5 Mbyte	2,048 Kbyte	10,176 Kbyte

Clock data, PLC device storage data (24 words max.) and Alarm record data

Item	GT01	GT11	GT21C	GT32M	GT32T
Memory	-	SRAM			SRAM
Memory backup	-	Lithium battery (replaceable) CR2032, commercially available *Not included. Buy it separately.			Lithium battery (replaceable) AFPX-BATT *Not included. Buy it separately.

Dimensions



* The above drawing shows GT32T1. GT32T0 and GT32M do not have an Ethernet port and sound output jack. The display area of GT32M is 116.2 x 87.4 mm.

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