Panasonic

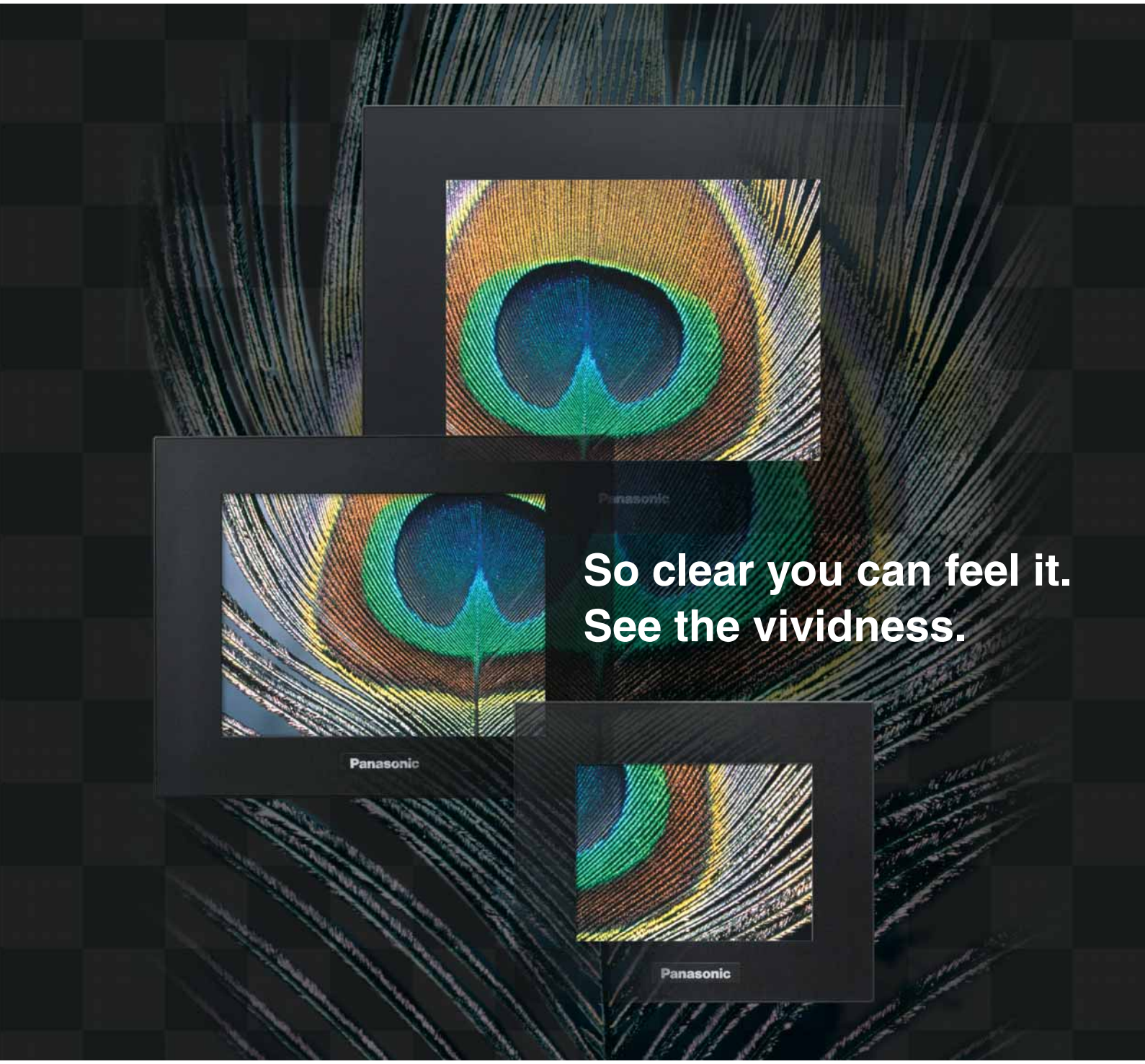
ideas for life

GT series

Programmable Display

GT01 GT01R GT05 GT11 GT21C GT32

NEW



All LCD pictures in this catalog are simulated images.

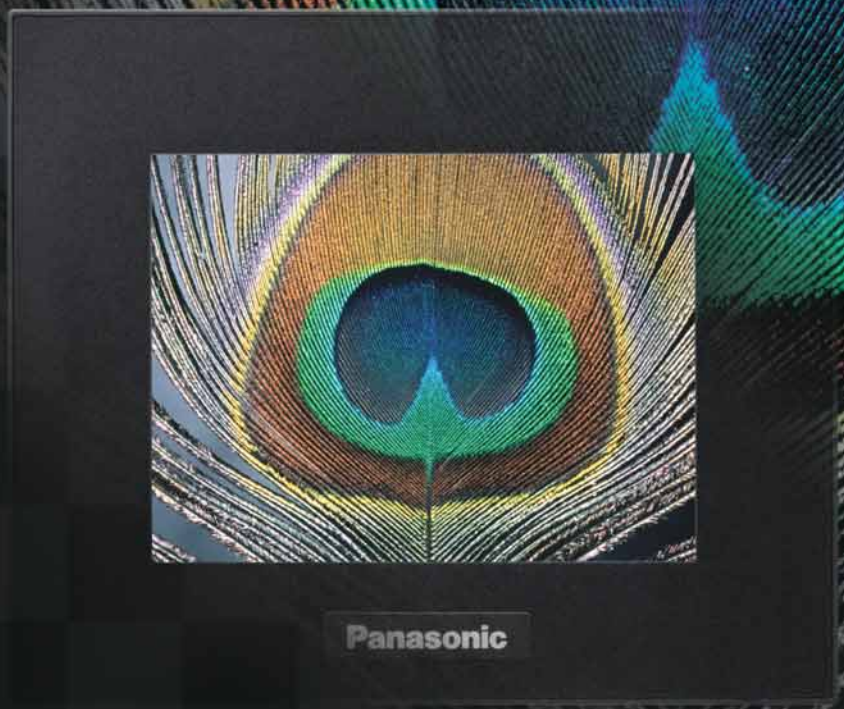
Programmable Display GT Series
ARCT1B294E '07.12

New

http://www.mew.co.jp/ac/e/

Matsushita Electric Works, Ltd.

Vivid



GT05 Actual size

GTseries

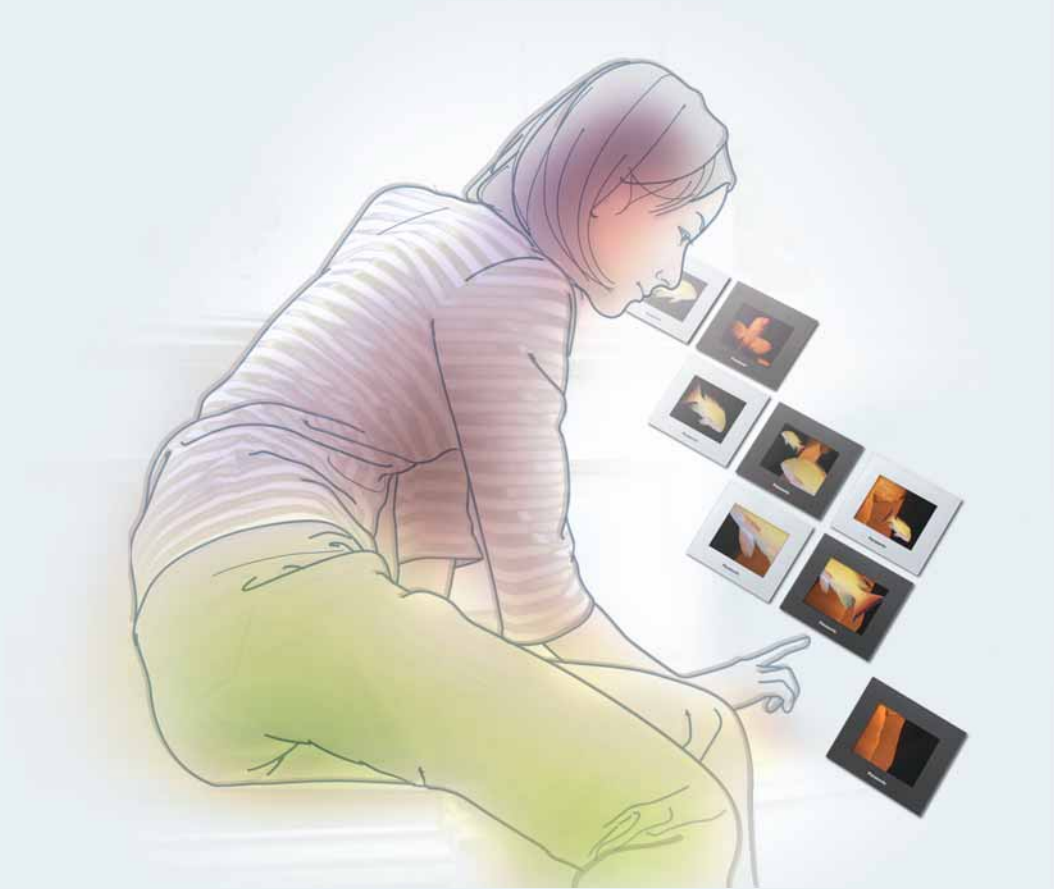
GT Series compact programmable displays pursuing the fundamentals of communication ultimately brings out the beauty of functionality. Look, listen, and touch.

What are the very basic concepts of programmable displays?

Programmable displays are also called HMI (human-machine interfaces), which communicate human intentions to the machine, communicate the machine's status to humans, and await further instructions.

"More accurate, quicker, and easier operations"

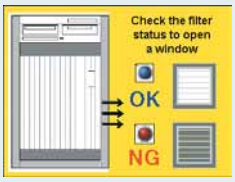
Based on this very basic concept, Matsushita Electric Works GT series programmable displays focuses on operator friendliness and easier communication of information by machines (machine designers).



Improved visibility and operability for operators

■Instructions with color pictures

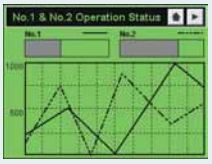
GT32T and GT05S are capable of displaying 4,096-color images. Which allows you to display instructions with pictures of limit samples.



■Three-color LED backlights, which allow for checking the machine status at a glance

GT05M, GT05G, GT11, GT01R, and GT01 can display screens in three different colors; for example, green under normal conditions, orange during operation, and red during emergencies.

GT05M/GT05G

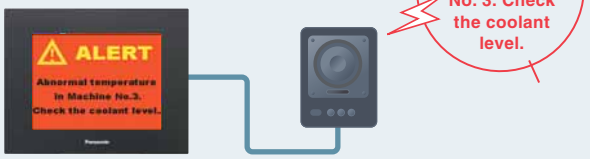


GT11

GT01R/GT01

■Sound output function, which eliminates the need of monitoring the screen

GT32T1 can communicate information to operators through voice messages or melodies, eliminating the need to monitor the screen. The sound files are in WAV format, which can be easily prepared by a PC.



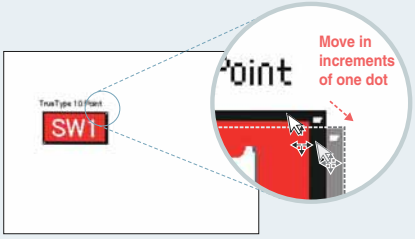
■Quick response

The response speed of programmable displays largely depends on the communication speed of the controller, such as a PLC; as well as that of the displays themselves. GT series displays support high-speed communications of up to 115.2 kbps.

■High flexibility screen design

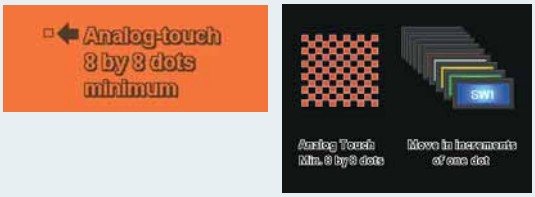
The operability of a display largely depends on the screen design. Our GT series uses an analog-touch system, which TrueType fonts can display 10 to 240-dot* characters. In addition, character and switch locations on a screen can be adjusted in increments of one dot. Therefore, highly visible screen designs are possible.

* The maximum size varies depending on the model.

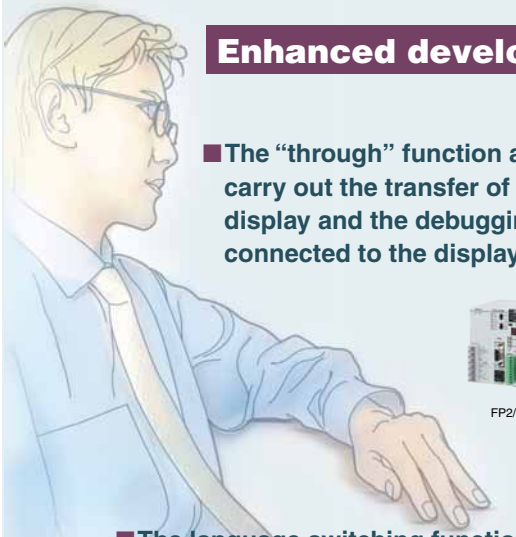


"TrueType fonts"

"Analog-touch design"

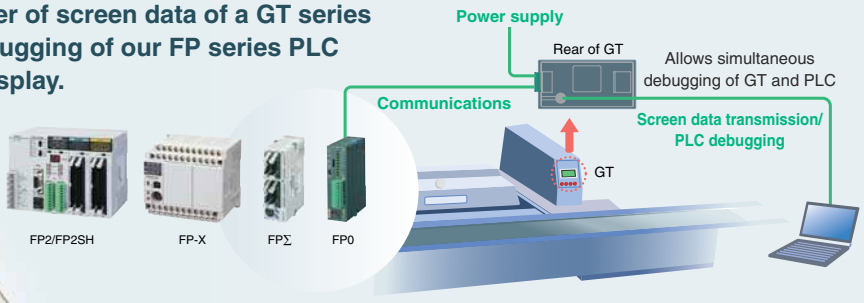


NEW Since the restriction on the usable TrueType fonts has been removed, it is now possible to choose a font focusing on the screen image and visual quality.



Enhanced development efficiency for system designers

■The "through" function allows you to simultaneously carry out the transfer of screen data of a GT series display and the debugging of our FP series PLC connected to the display.



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

Conventionally, screens were duplicated for each language. With this new language switching function, word can be entered in all available languages for each part in a table. Therefore, the same screens are used and programming is simple. The character table (pictured below) illustrates how the languages are organized and allows for editing and importing with Excel.

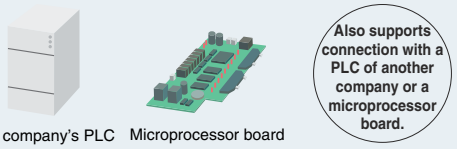
		Japanese	English	Simplified Chinese	Traditional Chinese	Korean
000	SW0	日本語	English	简体中国语	繁體中國語	한국어
000	SW0	ありがとうございました	Thank you	热烈欢迎	請多指教	안녕하세
000	SW1	1	1	1	1	1
000	SW1	2	2	2	2	2

<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.



■Custom switches

Capable of creating custom switches using bitmap data, multicolor custom lamps, and display of multiple text messages.

■USB interface equipment (GT05/GT32)

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

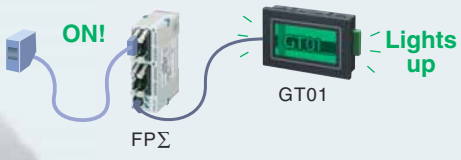
*Also supports the "through" function for our FP series PLC.

■Slot for SD memory card of up to 1 GB (GT05/GT32)

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

■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.



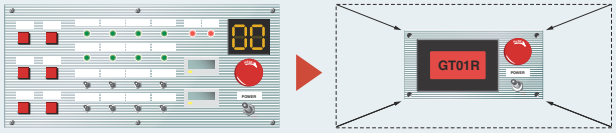
■Environmentally friendly lower power consumption design

■Startup screen

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

■Cost and space saving

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

■Wide variety of functions

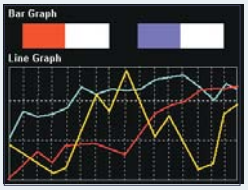
"Write Device function"

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

"Recipe function"

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

"Graph function"



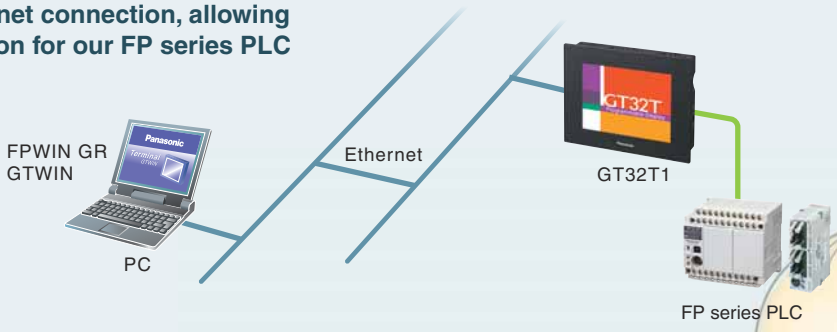
You can identify the production or operation status in line or bar graph form.

"Flow Display function"

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

Simple maintenance

■GT32T1 supports Ethernet connection, allowing for the "through" function for our FP series PLC in a remote location.



■Maintenance-free LED backlight (GT01/GT01R/GT05/GT11/GT21C)

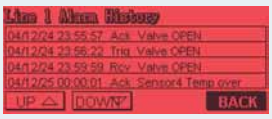
The use of the white LED backlight eliminated backlight replacement work.

■Transformer-isolated power supply (GT05/GT32)

The isolated power supply enhances the reliability.

■Alarm list (GT05/GT11/GT21C/GT32)

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

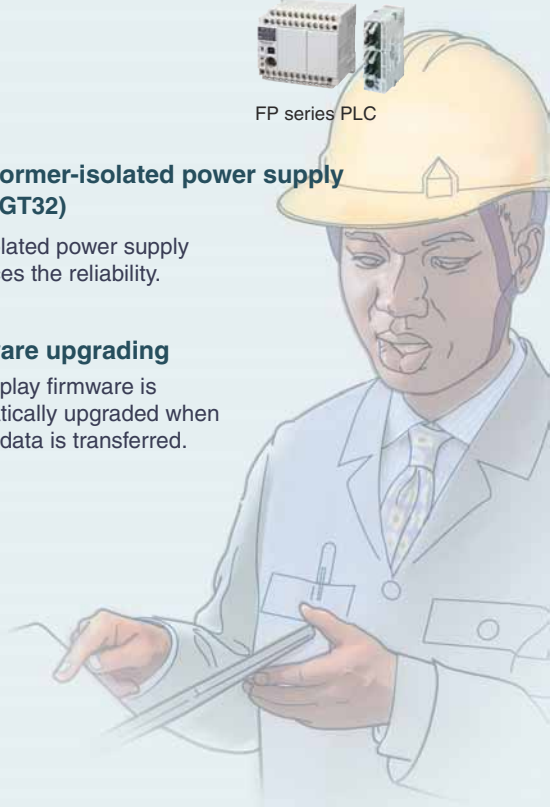


(GT11)

(GT21C)

■Firmware upgrading

The display firmware is automatically upgraded when screen data is transferred.



GT05M/GT05G Compact Programmable Display

3.5 inch	STN monochrome (white/black)	3-color LED backlight (white/red/pink) (green/orange/red)	32 chars. ×24 lines (10-dot font)	320×240 dots	USB	SD	24V DC

Ultra-compact body equipped with a QVGA display capable of showing the best quality images in the compact class

GT05M

Pure black

GT05G

Hairline silver

Red

Pink

Orange

Red

The 3.5-inch high-contrast black QVGA LCD provides visibility ten times*1 better than our conventional model.

Contrast ratio: 10 times*1 Displayable characters: 10 times*1 Resolution: 9 times*1

The new backlight provides three times higher brightness*1. GT05M displays screens in white, red, and pink, and GT05G in green, orange, and red, ensuring both operability and visibility.

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

■**Easy to copy, back up, and restore screen data.**

USB interface as standard equipment

■**Supports the through function using a USB cable, allowing simultaneous debugging of PLC and GT.**

Characters of a 240-dot maximum size can be displayed.

■**Capable of displaying several fine ten-dot characters or one 240-dot character in full screen.**

Transformer-isolated power supply

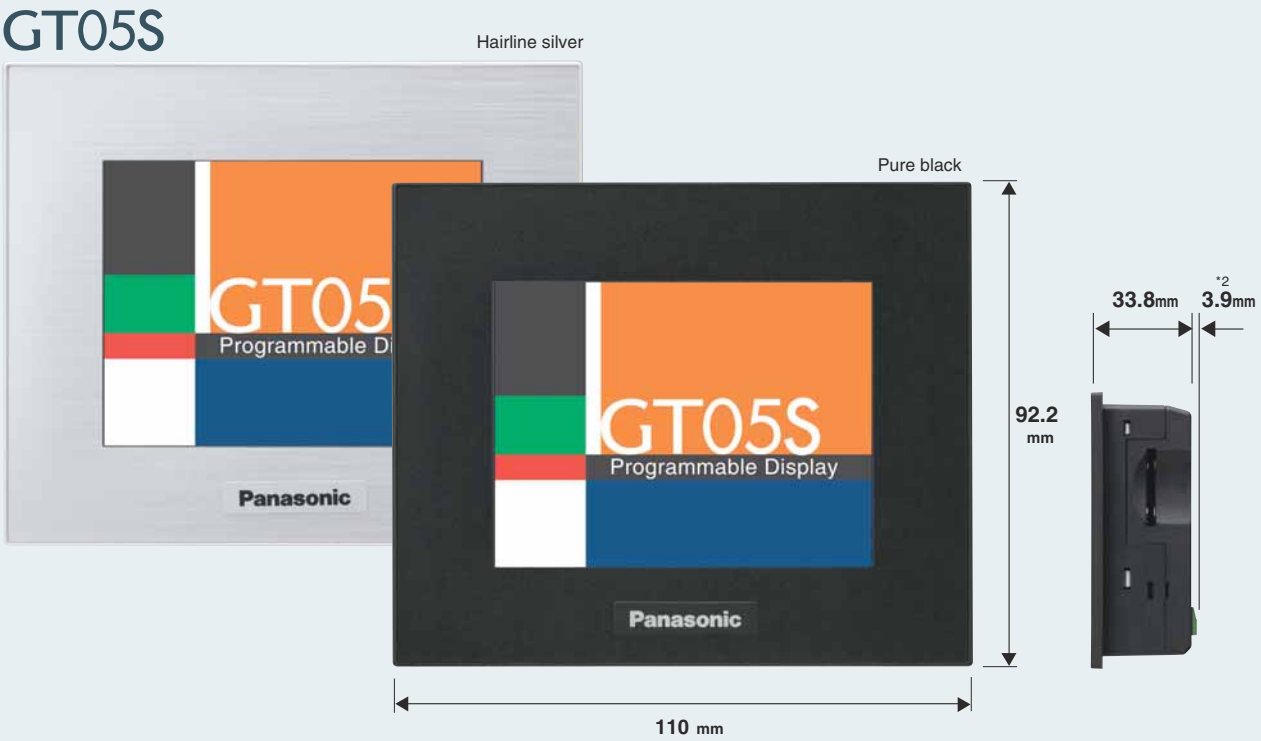
■**The isolated power supply enhances the reliability.**

*1: Compared with GT01
*2: Note that the COM port connector projects an additional 3.9 mm. Also take the cable diameter must be taken into account.
*3: Compared with GT21C
• The panel face protection sheet for the GT series is available as an option.

GT05S Compact Programmable Display

3.5 inch	STN 4,096 colors	White LED backlight	32 chars. ×24 lines (10-dot font)	320×240 dots	USB	SD	24V DC

The industry's smallest 3.5-inch STN color display capable of displaying colorful images in a limited space



3.5-inch STN 4,096-color QVGA LCD with a wide viewing angle

Although the LCD is an STN type, a wide viewing angle (50 deg horizontally, 60 deg vertically) has been achieved, improving visibility from different angles.

The new backlight provides twice the brightness*3.

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

■**Easy to copy, back up, and restore screen data.**

USB interface as standard equipment

■**Supports the through function using a USB cable, allowing simultaneous debugging of PLC and GT.**

Characters of a 240-dot maximum size can be displayed.

■**Capable of displaying several fine ten-dot characters or one 240-dot character in full screen.**

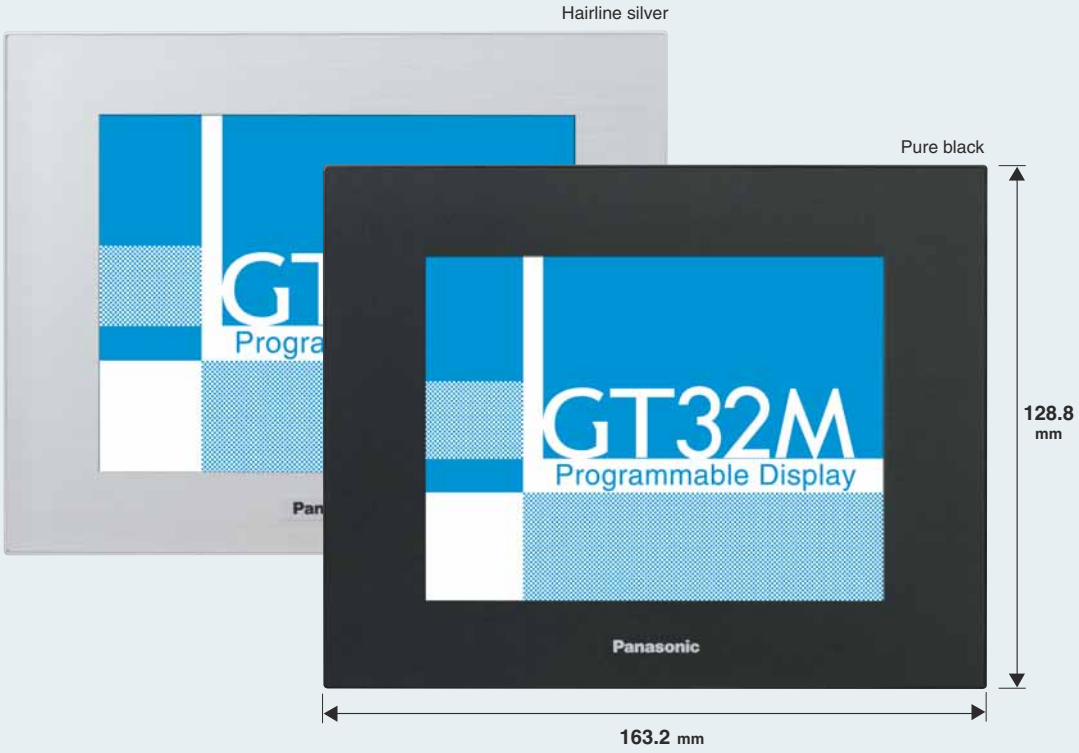
Transformer-isolated power supply

■**The isolated power supply enhances the reliability.**

GT32M Programmable Display

5.7 inch	STN monochrome (white/blue)	CFL backlight	32 chars. ×24 lines (10-dot font)	320×240 dots	USB	SD	24V DC

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



5.7-inch blue LCD equipped with 75,000-hour long life backlight

Although the backlight is a CFL type, it can last as long as 75,000 hours (approx. 8.5 years), reducing maintenance frequency. *1

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

■ **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)

■ **Easy to copy, back up, and restore screen data.**

USB interface as standard equipment

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

When used with our FP series PLC, this display supports the through function, which allows simultaneous debugging of the PLC and the display.

Transformer-isolated power supply

■ **The isolated power supply enhances the reliability.**

*1: The backlight type for GT32M cannot be changed.
*2: Please use a commercially available A-B type USB cable.
*3: Note that the COM port connector projects an additional 5.2mm. Also take the cable diameter must be taken into account.
• The panel face protection sheet for the GT series is available as an option.

GT32T0/T1 Programmable Display

5.5 inch | TFT 4,096 colors | CFL backlight | 32 chars. ×24 lines (10-dot font) | 320×240 dots | USB | SD | Ethernet (GT32T1) | Sound output (GT32T1) | 24V DC

Amazingly beautiful and vivid 4,096-color TFT LCD

The 4,096-color TFT LCD screen displays magnificent quality images.

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

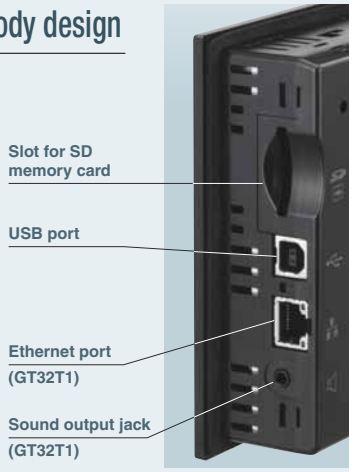
SD memory card slot as standard equipment (1 GB max)

■**Useful for copying, backing up, and restoring screen data, and for saving sound files**

Sound files can also be saved in the internal memory of the display.

USB interface as standard equipment

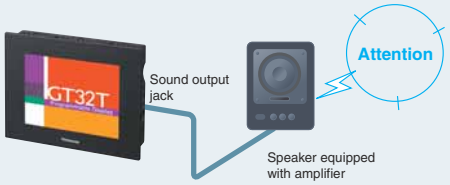
Transformer-isolated power supply



GT32T1 supports:

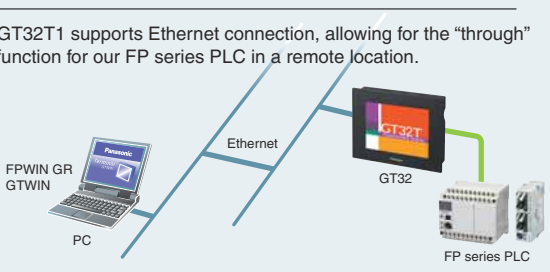
Sound output function

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



Ethernet connection

■GT32T1 supports Ethernet connection, allowing for the "through" function for our FP series PLC in a remote location.

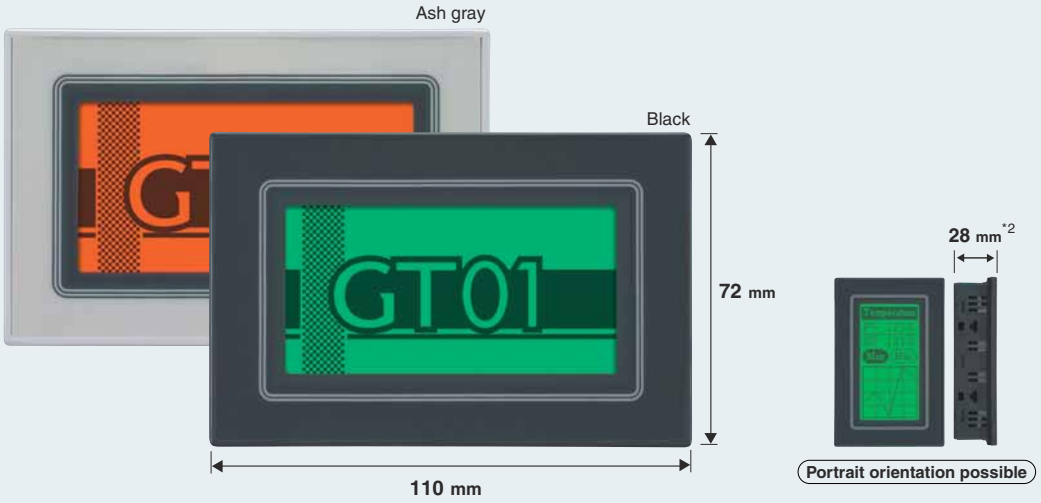


GT01 Ultra Compact Programmable Display

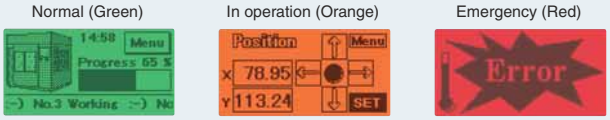
3 inch	STN monochrome (white/black)	3-color LED backlight (green/orange/red)	12 chars. ×6 lines (10-dot font)	128×64 dots	5V DC/ 24V DC

Ultra-compact 3-inch display with a full load of functions required for control panels

*1



■Three-color backlight shows the equipment status.



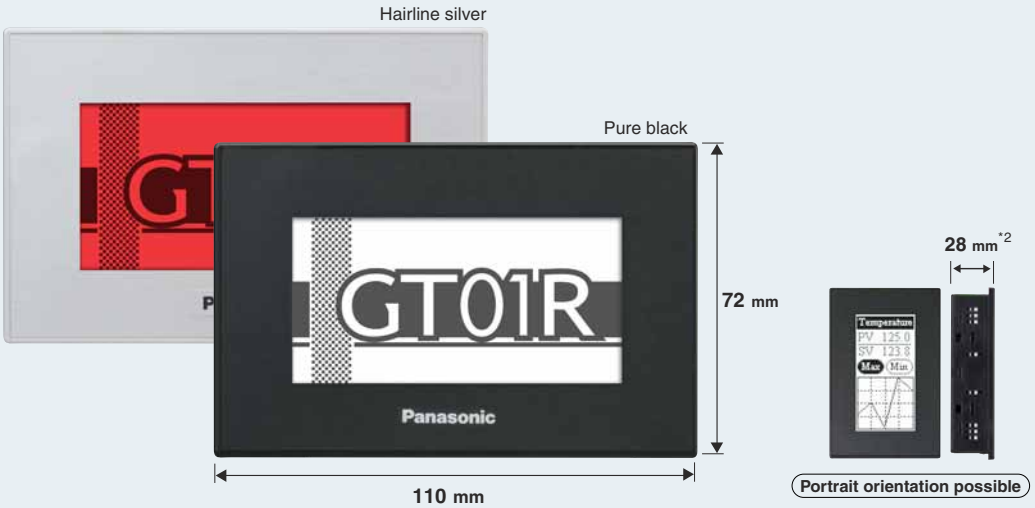
Only one cable is required to connect your GT directly to our **FP series** or Mitsubishi Electric **FX series**, substantially reducing the man-hours for wiring. (5 V DC)

GT01R Ultra Compact Programmable Display

3 inch	STN monochrome (white/black)	3-color LED backlight (white/red/pink)	12 chars. ×6 lines (10-dot font)	128×64 dots	5V DC/ 24V DC

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

*1



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

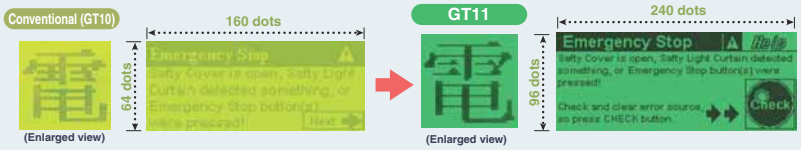
*1: CE marking is not available for AIGT0032B1(H1), AIGT0232B1(H1).
*2: When the panel thickness is 5 mm, the screw head of the mounting bracket protrudes 4 mm.
*3: Note that the COM port connector projects an additional 7mm. Also take the cable diameter must be taken into account.
• The panel face protection sheet for the GT series is available as an option.

GT11 Compact Programmable Display

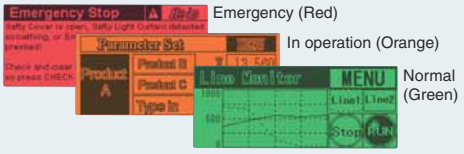
4 inch	STN monochrome (white/black)	3-color LED backlight (green/orange/red)	24 chars. ×9 lines (10-dot font)	240×96 dots	24V DC

The 4-inch wide screen equipped with a high-definition LCD can display a lot of information in its small space.

■ **Approx. doubled information capacity compared with GT10**



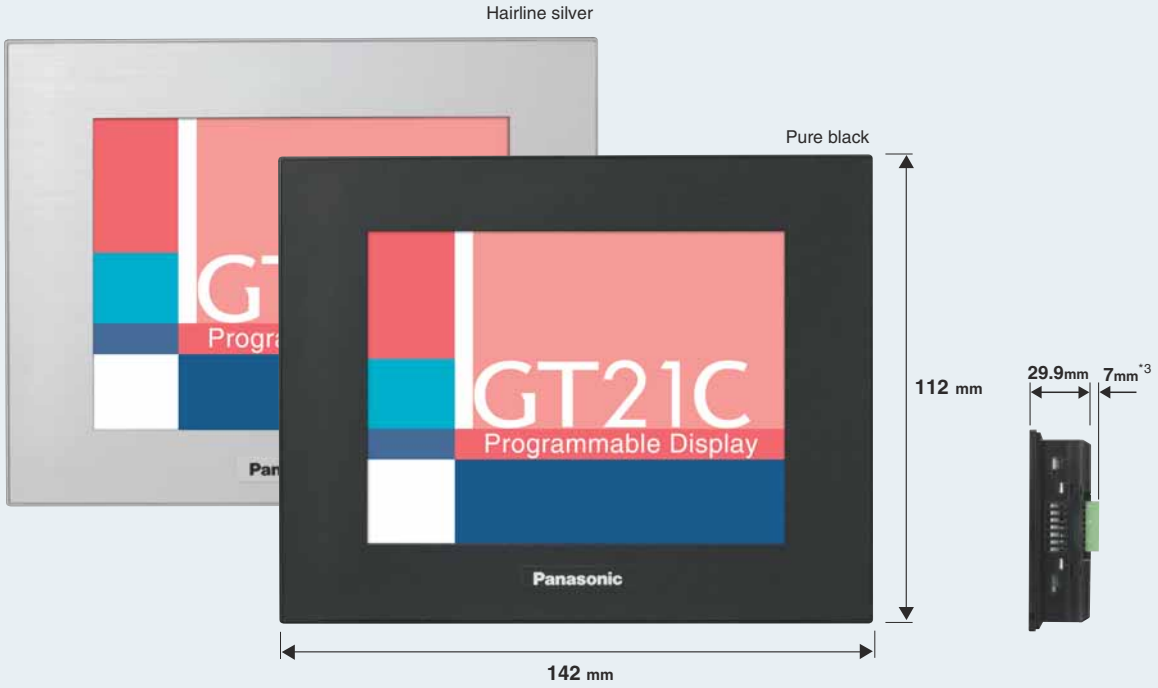
■ **Three-color backlight shows the equipment status.**



GT21C Programmable Display

4.7 inch	STN 256 colors	White LED backlight	32 chars. ×24 lines (10-dot font)	320×240 dots	24V DC

4.7-inch STN 256-color type. The image vividness is equivalent to that of the 5.7-inch type display, which can be replaced with this model.



■ **Maintenance-free white LED backlight**

■ **The total depth (excluding the display frame) is 29.9 mm, fitting a variety of installation locations.**

■ **Portrait orientation possible**

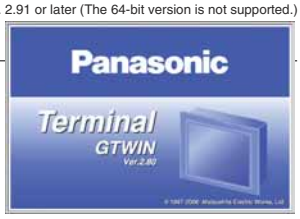
GTWIN Ver.2.9

Screen Creation Tool for the GT Series

WIN 2000	WIN XP	WIN Vista*	Required disk space 300 MB min.

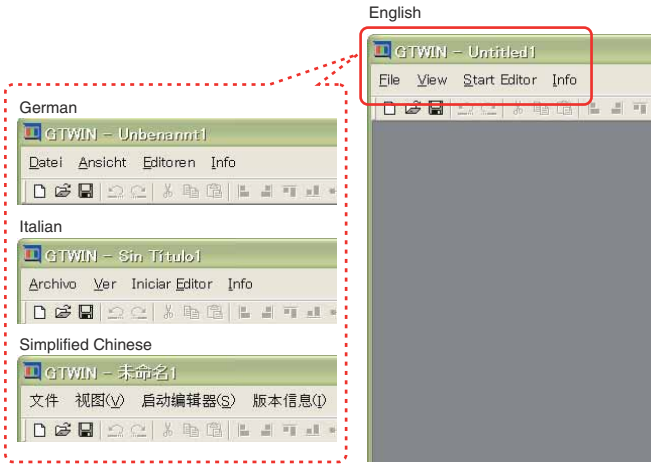
*Ver. 2.91 or later (The 64-bit version is not supported.)

The user-friendly interface makes screen creation easier.



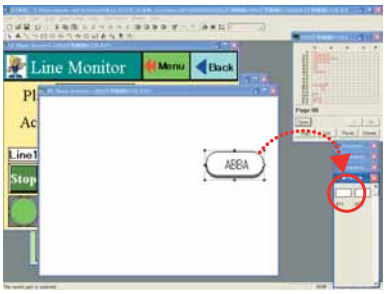
Multilingual menu and dialog

The menu can be indicated in Japanese/English/Simplified Chinese/Korean/German/Italian/Spanish/French.



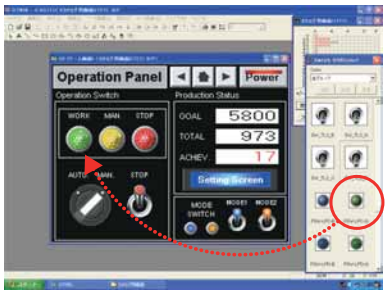
Just drag and drop your original parts to be registered.

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.

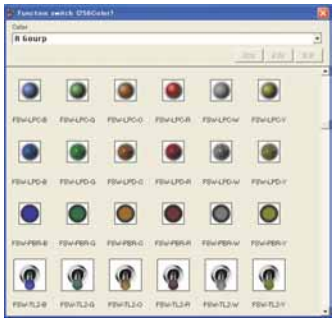


256-color 3D buttons (for GT05S/GT21C/GT32T)

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. You can also freely set the parts library window size.



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

Before transferring screen data, select “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 or later is not compatible with Windows 95, 98, Me or NT. Please use Ver. 2.71. The difference file can be downloaded from our website: http://www.mew.co.jp/ac/e**

You can download a trial version of GTWIN Ver. 2 from our Website. (Registration is required.)

Models listed are the models that have been evaluated as of November, 2007.

Company	Series	Model	GT01/GT01R/GT05/GT11/GT21/GT32	
			RS232C type	RS422 (RS485) type*2
Matsushita Electric Works	FP series	FP-X	◎	○
		FPΣ	◎	○
		FP-e	◎	○
		FP0	◎	○
		FP2	◎	○
		FP2SH	◎	○
Mitsubishi Electric*1	FX series	FX0N	○	◎
		FX1S	○	◎
		FX1N	○	◎
		FX1NC	○	◎
		FX2N	○	◎
		FX2NC	○	◎
		FX3UC	○	◎
	Q series	Q00CPU	◎	
		Q01CPU	◎	
		Q00JCPU	○	
		Q00HCPU	○	
		Q25HCPU	◎	
		Q12HCPU	◎	
		Q06HCPU	◎	
		Q02HCPU	◎	
		Q02CPU	◎	
	A series	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	C200HE-CPU32-Z	○	
		C200HE-CPU32	○	
		C200HG-CPU33-Z	○	
		C200HG-CPU33	○	
		C200HG-CPU53-Z	○	
		C200HG-CPU53	○	
		C200HX-CPU34-Z	○	
		C200HX-CPU34	○	
		C200HX-CPU54-Z	○	
		C200HX-CPU54	○	
		C200HE-CPU42-Z	◎	
		C200HE-CPU42	◎	
		C200HG-CPU43-Z	◎	
		C200HG-CPU43	◎	
		C200HG-CPU63-Z	◎	
		C200HG-CPU63	◎	
		C200HX-CPU44-Z	◎	
		C200HX-CPU44	◎	
Omron*1	α series	C200HX-CPU64-Z	◎	
		C200HX-CPU64	◎	
		C200HX-CPU65-Z	◎	
		C200HX-CPU85-Z	◎	
		C200HX-CPU64-Z	○	
	CV series	CV500	◎	
		CV1000	◎	
		CVM1	◎	
	CS1 series	CS1H-CPU67	◎	
		CS1H-CPU66	◎	
		CS1H-CPU65	◎	
		CS1H-CPU64	◎	
		CS1H-CPU63	◎	
		CS1G-CPU45	◎	
		CS1G-CPU44	◎	
		CS1G-CPU43	◎	
		CS1G-CPU42	◎	
	CJ1 series	CJ1H	◎	
		CJ1M	◎	
		CJ1G	◎	
	CP1 series	CP1H CP1L	○	
Toshiba Machine*1	TC mini series		◎ Models with RS232 port	◎ Models with RS485 port
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	◎	
		KV700	◎	○
		KV1000	◎	○
ALLEN-BRADLEY*1 Models that support protocol	Micro Logic series	MicroLogix1000	◎	
	SLC-500 series	SLC-5/03	◎	
		SLC-5/04	◎	
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/e/. (Registration is required.)

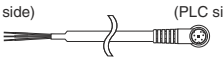
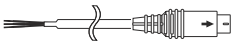
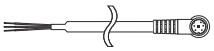
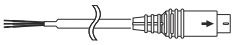
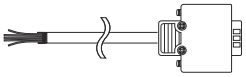
■Main Unit and Tool Software

Product name	Description				Part number
	LCD	Power supply	Communication port		
GT01 Main unit	STN monochrome (green/orange/red, backlight)	5V DC	RS232C	Black	AIGT0030B1
				Ash gray	AIGT0030H1
			RS422 (RS485)	Black	AIGT0032B1
				Ash gray	AIGT0032H1
		24V DC	RS232C	Black	AIGT0030B
				Ash gray	AIGT0030H
			RS422 (RS485)	Black	AIGT0032B
				Ash gray	AIGT0032H
GT01R Main unit	STN monochrome (white/red/pink, backlight)	5V DC	RS232C	Pure black	AIGT0230B1
				Hairline silver	AIGT0230H1
			RS422 (RS485)	Pure black	AIGT0232B1
				Hairline silver	AIGT0232H1
		24V DC	RS232C	Pure black	AIGT0230B
				Hairline silver	AIGT0230H
			RS422 (RS485)	Pure black	AIGT0232B
				Hairline silver	AIGT0232H
GT11 Main unit*1	STN monochrome (green/orange/red, backlight)	24V DC	RS232C	Black	AIGT2030B
				Ash gray	AIGT2030H
			RS422 (RS485)	Black	AIGT2032B
				Ash gray	AIGT2032H
GT05M Main unit	STN monochrome (white/red/pink, backlight)	24V DC	RS232C	Pure black	AIG05MQ02D
				Hairline silver	AIG05MQ03D
			RS422 (RS485)	Pure black	AIG05MQ04D
				Hairline silver	AIG05MQ05D
GT05G Main unit	STN monochrome (green/orange/red, backlight)	24V DC	RS232C	Pure black	AIG05GQ02D
				Hairline silver	AIG05GQ03D
			RS422 (RS485)	Pure black	AIG05GQ04D
				Hairline silver	AIG05GQ05D
GT05S Main unit	STN color	24V DC	RS232C	Pure black	AIG05SQ02D
				Hairline silver	AIG05SQ03D
			RS422 (RS485)	Pure black	AIG05SQ04D
				Hairline silver	AIG05SQ05D
GT21C Main unit	STN color	24V DC	RS232C	Pure black	AIGT2230B
				Hairline silver	AIGT2230H
			RS422 (RS485)	Pure black	AIGT2232B
				Hairline silver	AIGT2232H
GT32M Main unit	STN monochrome	24V DC	RS232C	Pure black	AIG32MQ02D
				Hairline silver	AIG32MQ03D
			RS422 (RS485)	Pure black	AIG32MQ04D
				Hairline silver	AIG32MQ05D
GT32T0 Main unit	TFT color	24V DC	RS232C	Pure black	AIG32TQ02D
				Hairline silver	AIG32TQ03D
			RS422 (RS485)	Pure black	AIG32TQ04D
				Hairline silver	AIG32TQ05D
GT32T1 Main unit	TFT color	24V DC	RS232C	Pure black	AIG32TQ12D
				Hairline silver	AIG32TQ13D
			RS422 (RS485)	Pure black	AIG32TQ14D
				Hairline silver	AIG32TQ15D
Terminal GTWIN Ver.2 Tool kit*2	English version	GTWIN CD-ROM GT Series Technical Manual (English version)			AIGT8001V2
Terminal GTWIN Upgrade version*2	English version	Upgrades Terminal GTWIN Ver. 1 to Ver. 2.			AIGT8001V2R

*1: For GT11, a white LED backlight type is also available (made-to-order). Replace the sixth digit of the Part No. with "1" to order it. (Example: AIGT2130B)
*2: GTWIN Ver. 2.8 or later is not compatible with Windows 95, 98, Me or NT. Please use Ver. 2.71. The difference file can be downloaded from our website: http://www.mew.co.jp/ac/e

■Cables

●PLC connection cable

Programmable Display	Connection cable	PLC
GT01/GT01R (5 V DC, RS232C)	(GT side) (PLC side)  Part No.: **AIGT8142***, PLC connection cable (2 m), 5-pin mini-DIN connector — 4 single wires + Shielding wire	Matsushita Electric Works FP Series
GT01/GT01R (5 V DC, RS422/RS485)	 Part No.: **AIGT8152***, PLC connection cable (2 m), 8-pin mini-DIN connector — 6 single wires + Shielding wire	Mitsubishi Electric FX Series
GT Series (24 V DC, RS232C)	 Part No.: **AIGT8162**, PLC connection cable (2 m), 5-pin mini-DIN connector — 3 single wires + Shielding wire AIGT8165 (5 m) and AIGT8160 (10 m) are also available.	Matsushita Electric Works FP Series
GT Series (24 V DC, RS422/RS485)	 Part No.: **AIGT8175**, PLC connection cable (5 m), 8-pin mini-DIN connector — 4 single wires + Shielding wire	Mitsubishi Electric FX Series
GT Series (24 V DC, RS232C)	 Part No.: **AIP81842**, PLC connection cable (2 m), 9-pin D-SUB connector — open wire	Matsushita Electirc Works FP2/FP2SH COM port, 9-pin D-SUB connector example, CCU

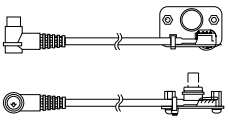
Note: This cable is for GT01/GT01R, and power is supplied through the TOOL port.

●Screen data transmission cable (for DOS/V computers)

9-pin D-SUB connector —
5-pin mini-DIN connector (L type: 3 m)
Part No.: **AFC8503**

9-pin D-SUB connector —
5-pin mini-DIN connector (Straight type: 3 m)
Part No.: **AFC8503S**

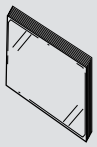
●Tool port panel extension cable



Part No.: **AFC8532**

*For GT05/GT32, please use a commercially available A-B type USB cable.

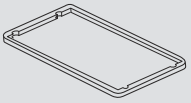
■Options



■Panel face protection sheets

10 sheets in a set (option)

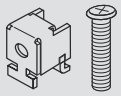
GT01	Part No.: **AIGT080**
GT01R	Part No.: **AIGT080R**
GT05	Part No.: **AIG05800**
GT11	Part No.: **AIGT280**
GT21	Part No.: **AIGT28021**
GT32	Part No.: **AIG32800**



■Waterproof packing

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

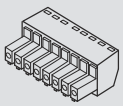
GT01, GT01R	Part No.: **AIGT081**
GT05	Part No.: **AIG05810**
GT11	Part No.: **AIGT181**
GT21	Part No.: **AIGT28121**
GT32	Part No.: **AIG32810**



■GT01/GT01R/GT11 mounting parts

5 sets of mounting parts (4 parts/set)
Package includes one set.

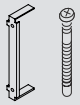
Part No.: **AIGT083**



■Spare connector

COM. port connectors, 5 connectors in a set
One piece is installed on main unit.

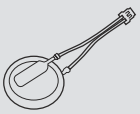
Part No.: **AIGT084**



■GT05/GT21C/GT32 mounting parts

5 sets of GT21C/GT32 mounting parts (2 parts/set)
Package includes one set.

Part No.: **AIGT28321**



■GT05/GT32 backup battery

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

Part No.: **AFPX-BATT**

Item		GT01 / GT01R				GT05M / GT05G		GT05S		GT11	
		5V/RS232C	5V/RS422	24V/RS232C	24V/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.		3.6W max.		2.4W max.	
Power supply unit isolation method		—				Transformer isolation				—	
Ambient temperature		0 to 50°C									
Ambient humidity		20 to 85% RH (No condensation at 25°C)									
Storage temperature		–20 to 60°C									
Storage humidity		10 to 85% RH (No condensation at 25°C)									
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					
Display	Display device	STN monochrome LCD				STN monochrome LCD		STN color LCD		STN monochrome LCD	
	Resolution	128 (W) x 64 (H) dots				320 (W) x 240 (H) dots				240 (W) x 96 (H) dots	
	Display color	2 colors (black/white)				2 colors (black/white)		4,096 colors		2 colors (black/white)	
	Displayable area	70.38 (W) x 35.18 (H) mm				73.0 (W) x 55.2 (H) mm				96.0 (W) x 38.4 (H) mm	
	Backlight	GT01: 3-color LED (green, orange, red) GT01R: 3-color LED (white, red, pink) *No need for replacement				GT05M: 3-color LED (white, red, pink) GT05G: 3-color LED (green, orange, red) *No need for replacement		White LED *No need for replacement		3-color LED (green, orange, red) /White LED *No need for replacement	
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 to 64 dots Windows (R): 10 to 64 dots				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 to 240 dots, Windows (R): 10 to 240 dots				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 to 64 dots Windows (R): 10 to 64 dots	
	Languages	Japanese, English, Korean, German, French, Spanish, Italian, Simplified Chinese, Traditional Chinese, Turkish									
	Graphics	Straight lines, continuous straight lines, squares, circles, ovals, arcs, elliptic arcs, fan shapes, elliptic fan shapes, beveled squares, bitmaps									
	Number of screens*3	Approx. 160 screens				Approx. 240 screens		Approx. 180 screens		Approx. 250 screens	
	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					
	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.									
	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/Vista				Dedicated software should be used. Applicable OS: Windows® 2000/XP/Vista				Dedicated software should be used. Applicable OS: Windows® 95 (OSR2 or later)/98/Me/2000/NT/XP/Vista	
Touch key resolution		Free layout (8 dots min)									
Touch key operation force		0.5 N max				0.8 N max				0.5 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
	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				Tool port (Conforms to RS232C)	
	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				—				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				5-pin mini-DIN	
	Ethernet port*8	—									
User's memory		F-ROM									
Memory capacity		384 kbyte				2,048 kbyte		12,288 kbyte		1,375 kbyte	
Memory		—				SRAM					
Memory backup		—				Lithium battery (replaceable) AFPX-BATT * Does not come with product.				Lithium battery (replaceable) CR2032, commercially available * Does not come with product.	

*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 caries 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.

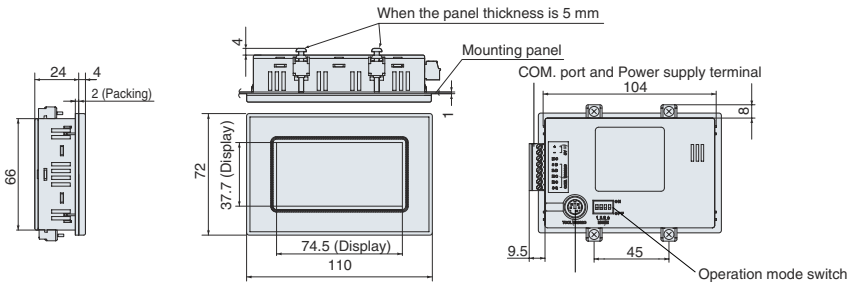
Conformance to the UL/cUL standards

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

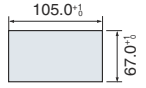
Item			GT21C		GT32M		GT32T0		GT32T1	
			RS232C	RS422	RS232C	RS422	RS232C	RS422	RS232C	RS422
Rated voltage			24 V DC							
Operating voltage range			21.6 to 26.4 V DC							
Power consumption			4.8W max.		10W max.				12W max.	
Power supply unit isolation method			—		Transformer isolation					
Ambient temperature			0 to 50°C*1		0 to 50°C*2					
Ambient humidity			20 to 85% RH (No condensation at 25°C)							
Storage temperature			–20 to 60°C							
Storage humidity			10 to 85% RH (No condensation at 25°C)							
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)							
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. 330g		Approx. 500 g		Approx. 470 g		Approx. 480 g	
Display	Display device		STN color LCD		STN monochrome LCD		TFT color LCD			
	Resolution		320 (W) x 240 (H) dots							
	Display color		256 colors		2 colors (blue/white)		4,096 colors			
	Displayable area		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		White LED *No need for replacement		CFL *Not replaceable. Average life; GT32M: 75,000 hours (at 25°C), GT32T: 50,000 hours (at 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 to 240 dots, Windows (R): 10 to 240 dots							
	Languages		Japanese, English, Korean, German, French, Spanish, Italian, Simplified Chinese, Traditional Chinese, Turkish							
	Graphics		Straight lines, continuous straight lines, squares, circles, ovals, arcs, elliptic arcs, fan shapes, elliptic fan shapes, beveled squares, bitmaps							
	Number of screens*3		Approx. 250 screens		Approx. 240 screens		Approx. 180 screens			
	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, line graphs, and alarm list parts							
	Other functions		Recipe, flow display, write device, alarm record, alarm list, and language switching						Sound output *4	
	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 PC 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/Vista		Dedicated software should be used. Applicable OS: Windows® 2000/XP/Vista					
Touch key resolution			Free layout (8 dots min)							
Touch key operation force			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
	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*8		—						Yes (100BASE-TX, 10BASE-T) *6, *7	
User's memory			F-ROM							
Memory capacity			6.5 Mbyte		2,048 kbyte		12,288 kbyte (Ver.1.10 or later)			
Memory			SRAM							
Memory backup			Lithium battery (replaceable) CR2032, commercially available * Does not come with product.		Lithium battery (replaceable) AFPX-BATT * Does not come with product.					

GTseries Dimensions (unit: mm)

GT01

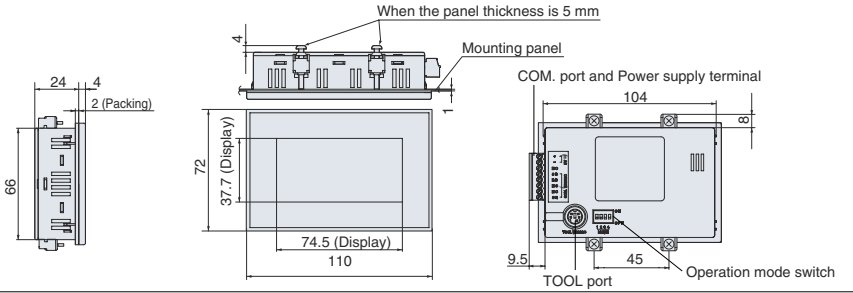


Panel cutout dimensions

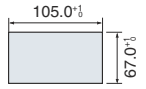


Applicable panel thickness:
1.0 mm to 5.0 mm

GT01R

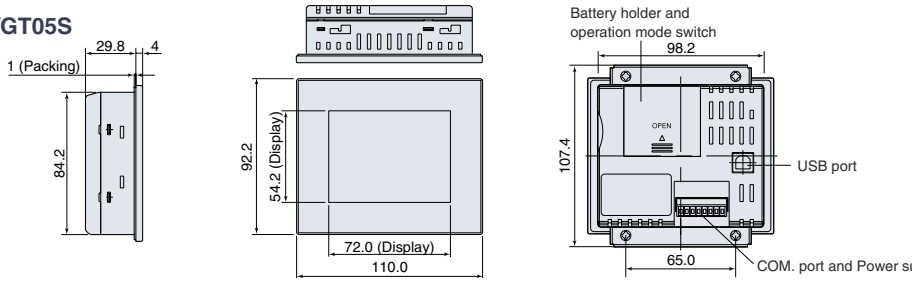


Panel cutout dimensions

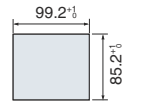


Applicable panel thickness:
1.0 mm to 5.0 mm

GT05M/GT05G/GT05S

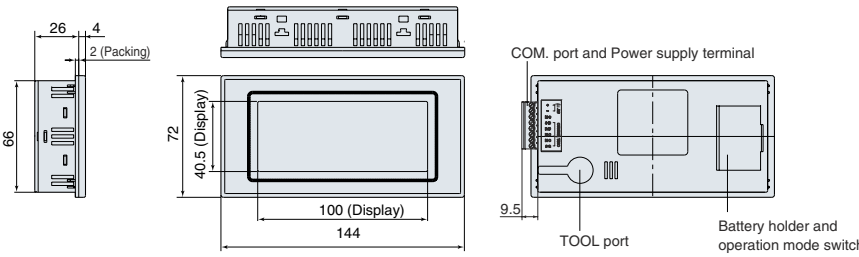


Panel cutout dimensions

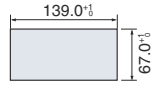


Applicable panel thickness:
1.0 mm to 5.0 mm

GT11

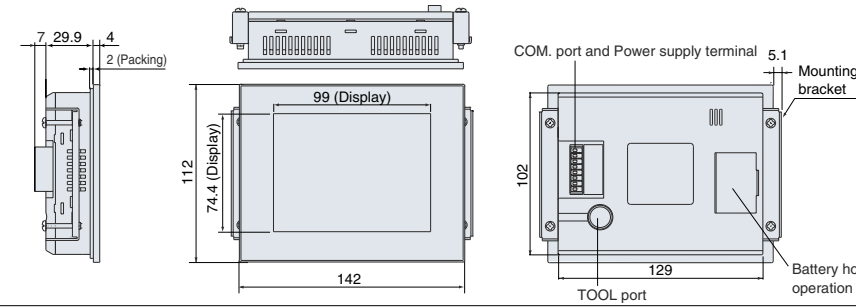


Panel cutout dimensions

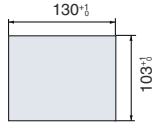


Applicable panel thickness:
1.0 mm to 5.0 mm

GT21C

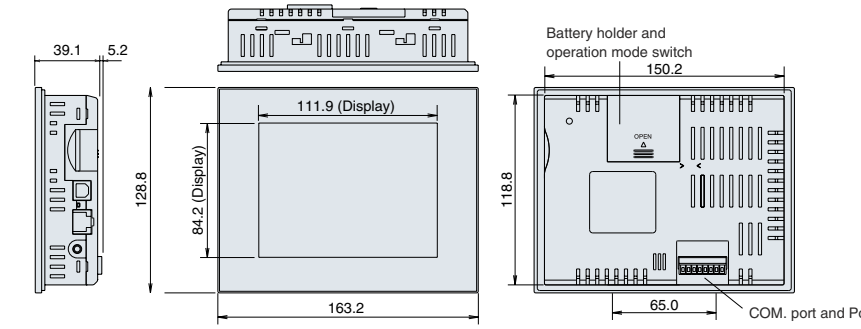


Panel cutout dimensions

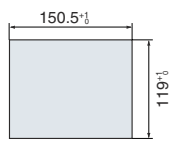


Applicable panel thickness:
1.0 mm to 5.0 mm

GT32M/GT32T



Panel cutout dimensions



Applicable panel thickness:
1.0 mm to 5.0 mm

*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.

These materials are printed on ECF pulp.
These materials are printed with earth-friendly vegetable-based (soybean oil) ink.
PRINTED WITH SOY INK

Matsushita Electric Works, Ltd. Automation Controls Business Unit
■ Head Office: 1048, Kadoma, Kadoma-shi, Osaka 571-8686, Japan
■ Telephone: +81-6-6908-1050 ■ Facsimile: +81-6-6908-5781
http://www.mew.co.jp/ac/e/

ARCT1B294E 200712-1.25X