Panasonic

OVERVIEW

TOUCH PANELS

Communication between humans and machines

Whether in industry, shipping and transportation or in modern office systems, today's technology increasingly requires communication between people and machines. The machine's role therein is to display data, results, messages, etc. and to receive instructions and execute tasks assigned by people.

To meet the ever increasing demands of technology, new products have been developed over the last several years: touch panels – also known as HMIs. HMIs allow humans and machines to interact with each other.

Many functions that previously required lamps, LEDs and switches to be connected, for example, can now be fulfilled with just one device. Other functions that simply made life easier for the user came into being. For example, HMIs can save and display text and graphics, report errors as well as display data and machine status online. By entering instructions on the touch panel, the user can transfer data or issue instructions to the machine or the machine controller, usually via an interface.

Panasonic touch panels

The new compact tough panels (GT03-E, GT32-E) are successfully setting new standards for touch panels that can be used in difficult temperature conditions. The panels can be used outdoors within a temperature range of -20°C to +60°C. Luminosity is 700cd/m², which guarantees the legibility of complex displays even in direct sunlight.

Quality that you see

High-quality design offers a brilliant display. Parameters such as brightness and contrast, which can be individually specified, guarantee superior legibility. Moreover, all LCDs can be read at wide angles. The compact housing and protective plastic sheets for the display attest to a robust design.

All Panasonic HMIs fulfill the required international standards and regulations. As with all Panasonic products, our HMIs are subjected to extreme tests that far exceed normal operating conditions. Components and materials are meticulously selected so that a long lifetime is guaranteed.
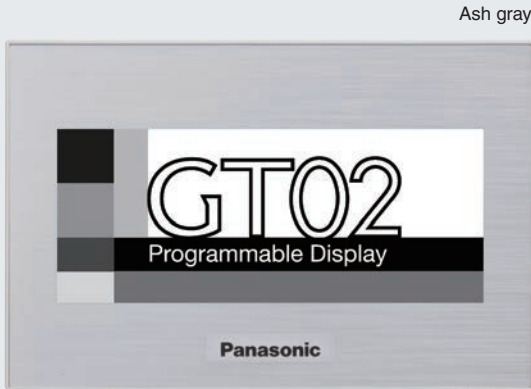
Content

Product overview

Compact and durable:

the GT32-E from Panasonic

GT02

Compact and innovative 3.8 inch STN display for clear and vivid pictures
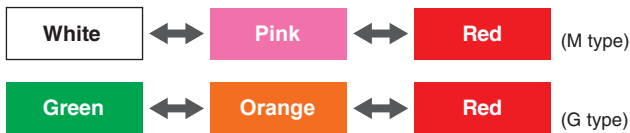
Ash gray

Pure black

74mm

112mm

3.8 inch high-contrast monochrome LCD, 3-color LED backlight

The high-definition LCD (240 x 96 dots) increases information capacity. The 3-color LED backlight is maintenance-free and controllable and comes in two variations: green/orange/red and white/pink/red.

| White | ⬌ | Pink | ⬌ | Red | (M type) |
| Green | ⬌ | Orange | ⬌ | Red | (G type) |

27mm

Connector for communication and power supply

Battery

PLC

FP series connection cable (AIGT8162 and AIGT8142)

Slot for SD memory card

USB port → PC

The first programmable display of its class which has an SD memory card slot

AIG02M2*D and AIG02G2*D are equipped with an SD/SDHC memory card slot to allow easy screen data transfer, data logging and storage.
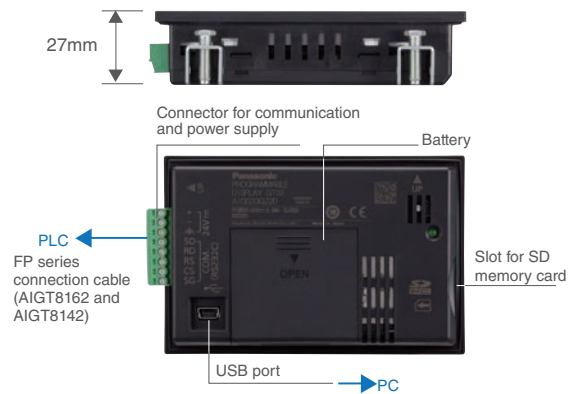
Flexible sizing and layout available for switches and characters

Switches of a minimum of 8 x 8 dots can be moved in increments of one dot. A wide range of character fonts and sizes (10 to 96 dots) is supported.

Application example: Water purifier

IP67-rated body

Highly impervious to dampness, water, vapors, etc. In addition, a new bracket for more secure fastening has been designed.

Horizontal and vertical mounting

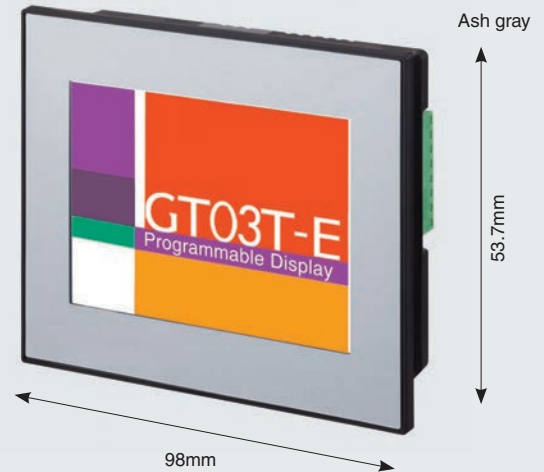This increases the scope of applications significantly.

GT03-E "tough panel"

Small, compact, and robust: the GT03-E

Ash gray

Ash gray

53.7mm

98mm

Optimal for operation under extreme conditions

With its ability to cope with a wide temperature range of -20°C to +60°C, the GT03-E is perfect for outdoor use. Installation is possible in landscape and portrait orientation.

Resistant to UV rays

The special UV coating slows down aging, increasing the panel's service life.

Excellent performance even when exposed to splashing water

The front panel has a waterproof construction (degree of protection: IP67).

Low power consumption

The GT03-E only requires 1.9W for the monochrome type and 3.1W for the color type.

Display highly readable even in bright environments

Thanks to the anti-glare layer, the display is easy to read even in bright sunlight.

Same resolution as 5.7 inch model (GT32-E)

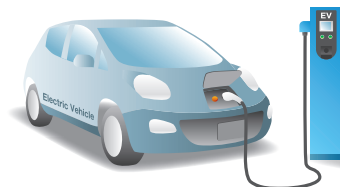Both GT03-E and GT32-E have the same resolution of 320x240 pixels, allowing you to re-use screen data.

Application examples

| Car washing machine | Coin-operated parking | Charging station for electric vehicles | Food filling station |

GT05M/GT05G
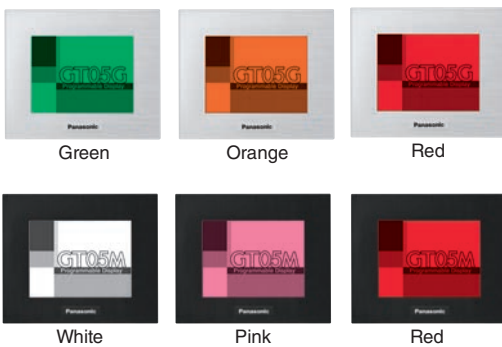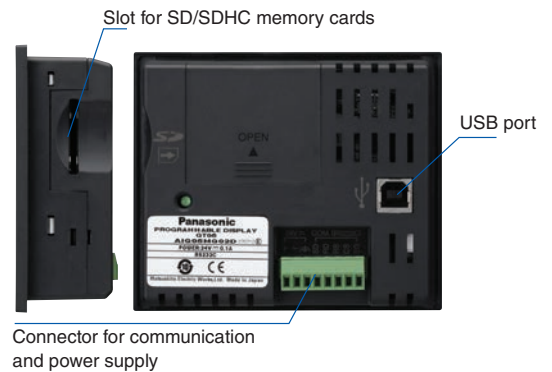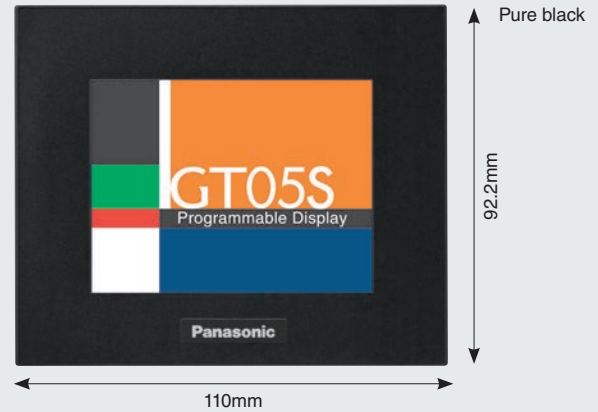
GT05S

3.5 inch high-contrast black QVGA LCD

Silver

3.5 inch 4096-color QVGA LCD

Pure black

92.2mm

110mm

Green   Orange   Red

White   Pink   Red

Slot for SD/SDHC memory cards

USB port

Connector for communication
and power supply

GT05M/GT05G
GT05G in green, orange and red, GT05M displays screens in white, red and pink, ensuring both operability, great readability and brightness.

The monochrome type GT05 touch panels come in 12 variations. Whether with a RS232C or RS422 (RS485) interface, black or silver housing, the choice is up to you!

GT05S
The industry´s smallest 3.5 inch STN color display. Large display with space-saving outer dimensions of 110 x 92.2 x 33.8mm.

The LCD uses STN technology to achieve a wide viewing angle (50° horizontally, 60° vertically), thus improving readability from different angles.

The GT05 series offers a host of innovative functions and is also pleasing to the eye. With their 4096 colors, the displays make it possible to create screens that are highly readable and user friendly.

Interfaces
The GT05 series provides an RS232C or an RS422 (RS485) interface, which allows you to connect the GT05 to PLCs of several manufacturers or other intelligent devices.

SD/SDHC memory card slot (up to 32GB max.)
Memory cards make it easy to copy, back up and restore GT projects, PLC programs, alarm lists, recipes, and data logs.

USB port
USB interface as standard equipment Supports the through function using a USB cable, allowing simultaneous debugging of PLC and GT touch panel.

GT12

IP67-rated body, top class brightness

Silver

IP67

Pure black

74mm

146mm
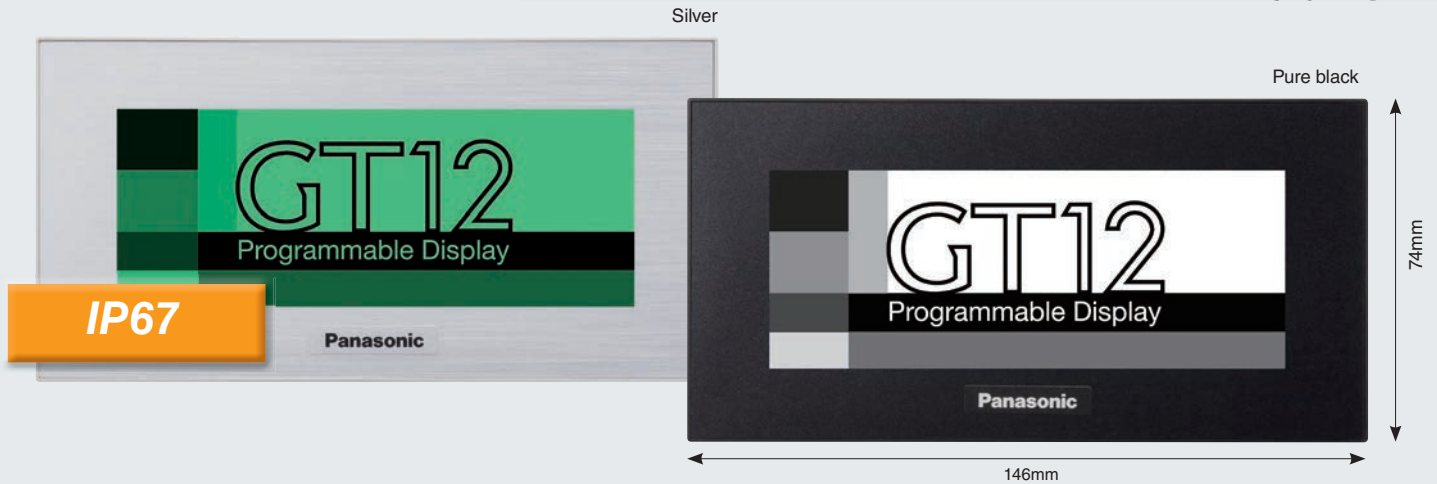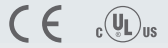
Slim body equipped with a half-QVGA LC display - the highest visual quality in its class

The high-definition LCD (320 x 120 dots) produces crisp images, without annoying dots or lines.

The bright, 3-color LED backlight indicates the equipment status

The color combination is white/red/pink or green/orange/red. The backlight enhances both operability and visibility.

| White | ⟷ | Pink | ⟷ | Red | (M type) |

| Green | ⟷ | Orange | ⟷ | Red | (G type) |

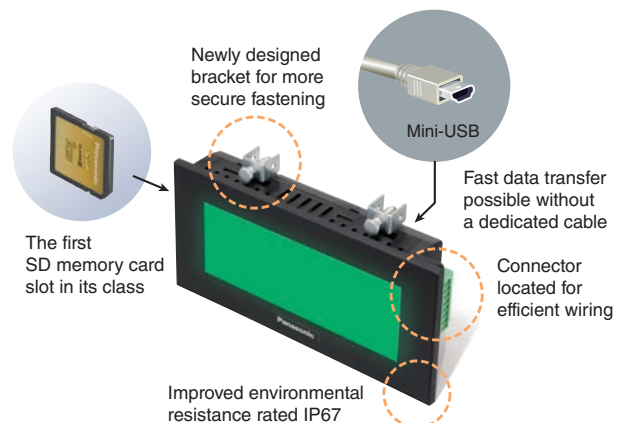## SD/SDHC memory card slot (up to 32GB max.)

Memory cards make it easy to copy, back up and restore GT projects, PLC programs, alarm lists, recipes, and data logs.

Mini-USB port as standard equipment

Supports the through function using a USB cable, allowing simultaneous debugging and programming of PLC and GT touch panel.

Flexible sizing and layout available for switches and characters
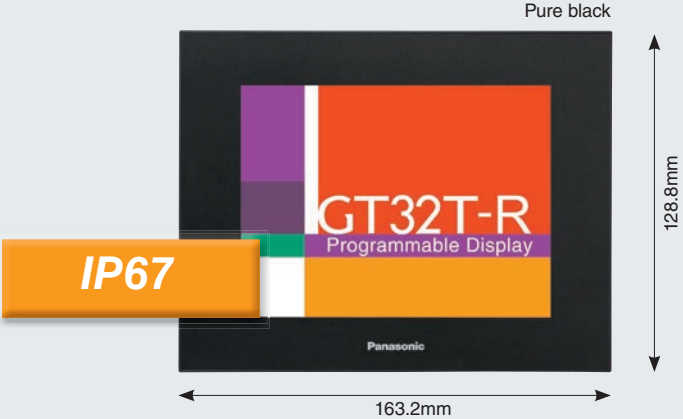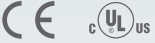
Switches of a minimum of 8 x 8 dots can be moved in increments of one dot.
A wide range of character fonts and sizes (10 to 120 dots) are supported.

Newly designed bracket for more secure fastening

Mini-USB

Fast data transfer possible without a dedicated cable

The first SD memory card slot in its class

Connector located for efficient wiring

Improved environmental resistance rated IP67

GT32-R

Clear and beautiful display thanks to high-definition, long-life LED backlight

Silver

Pure black

IP67

IP67

128.8mm

163.2mm

GT32M-R

5.7 inch monochrome STN LC display with 2 colors (black/white, 16 gray scales) equipped with a long-life white LED backlight

GT32T-R

5.7 inch color TFT LC display with 4096 colors equipped with a long-life white LED backlight

Improved display with excellent readability in bright environments

Thanks to the high contrast ratio, the display is easy to read even in bright sunlight.
GT32M-R has a contrast ratio of 400 : 1, GT32T-R has a contrast ratio of 500 : 1

The industry's thinnest panel in the 6-inch class with a depth of only 39.1mm

Big display with space-saving outer dimensions
(163.2 x 128.8 x 39.1mm)

SD/SDHC memory card slot (up to 32GB max.)

Memory cards make it easy to copy, back up and restore GT projects, PLC programs, alarm lists, recipes, and logged data.

39.1 mm   1.5 mm

Slot for SD memory card

To PC ← USB port
Connector for communication and power supply
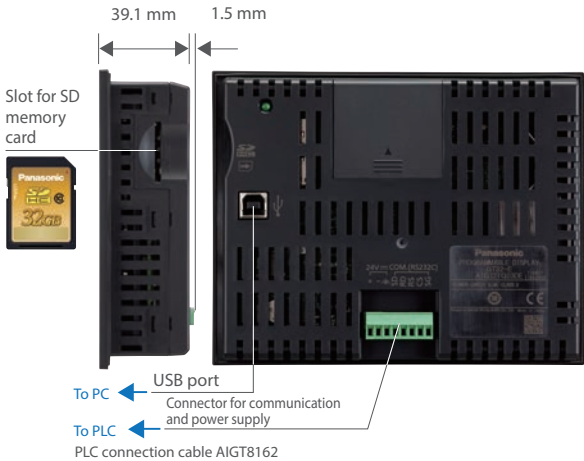To PLC ←
PLC connection cable AIGT8162

USB port

USB interface as standard equipment Supports the through function using a USB cable, allowing simultaneous debugging of PLC and GT touch panel.

Energy-saving thanks to low current consumption

The GT32M-R only requires 4.8W for the monochrome display and GT32T-R only 7.2W for the color display.

GT32-E

Programmable display with excellent legibility for a wide variety of outdoor applications   C€   c(UL)us

Ash gray

Pure black

128.8mm

163.2mm
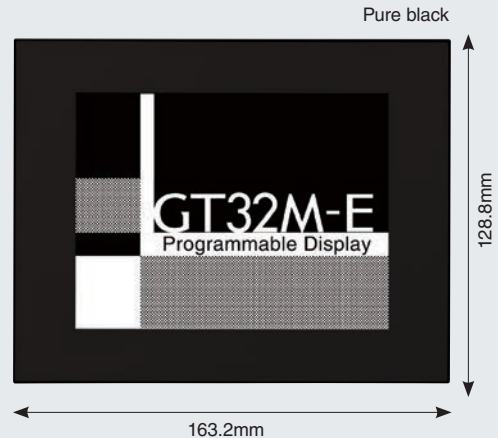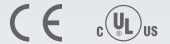
Excellent legibility

Improved brightness, high contrast, and a non-reflecting display ensure excellent legibility in sunlight, rain or fog.

Extensive application range

The ambient temperature ranges from -20°C to + 60°C and the ambient humidity from 10 to 90% RH.

39.1 mm   1.5 mm

Slot for SD memory card

To PC ◄ USB port

Connector for communication and power supply

To PLC ◄

PLC connection cable AIGT8162

UV protection

A protective layer on the front minimizes UV-related aging processes.

## Highly impervious to dampness, water, vapors, etc.

The front panel of the GT-E series provides an IP67 degree of protection, allowing the displays to be used in outdoor environments.

SD/SDHC memory card slot (up to 32GB max.)

Memory cards make it easy to copy, back up and restore GT projects, PLC programs, alarm lists, recipes, and data logs.
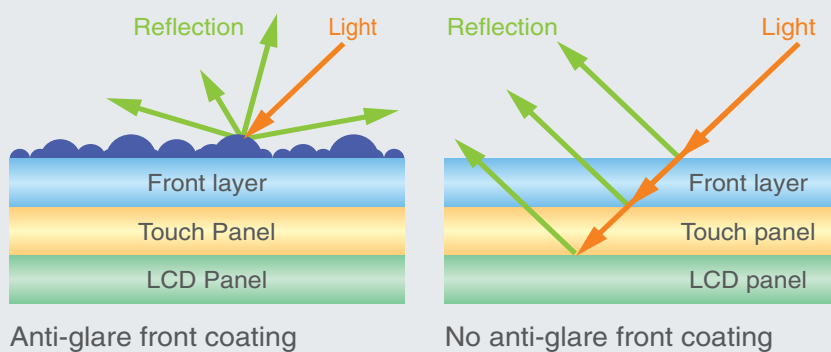
USB port

USB interface as standard equipment. Supports the through function using a USB cable, allowing simultaneous debugging of PLC and GT touch panel.
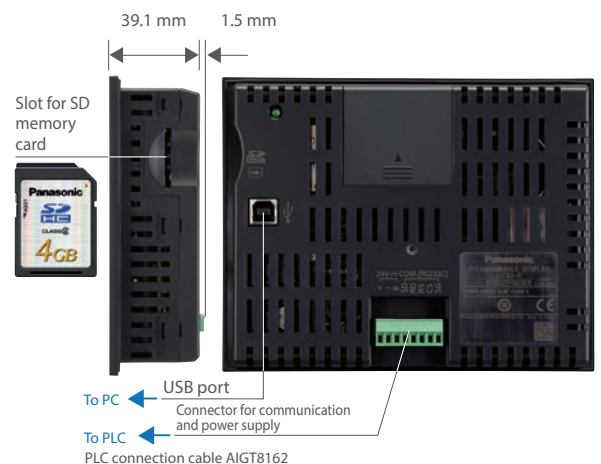
Anti-glare panel

Thanks to the non-reflecting panel, the display remains clear and easy to read under almost all circumstances. A UV coating ensures a long lifetime for the anti-glare layer.

Reflection	Light		Reflection	Light
Front layer			Front layer	
Touch Panel			Touch panel	
LCD Panel			LCD panel	

Anti-glare front coating   No anti-glare front coating
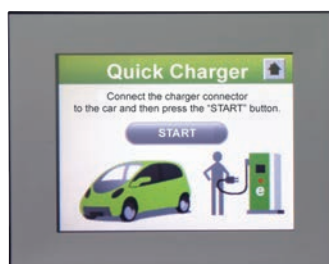
UV protection layer

The GT32-E touch panels are UV-resistant. The front protection layer also slows down the aging process caused by UV radiation.

Transformer-isolated power supply

The isolated power supply enhances reliability.

GT32T-E

5.7 inch, TFT color LCD with 4096 colors, backlight using long-life LED (approx. 50,000 hours)

New model GT32T-E   Standard GT32T

GT32M-E

5.7 inch, TFT color LCD with 16 gray scales, backlight using long-life LED (approx. 70,000 hours)

New model GT32M-E   Standard GT32M

Progressing towards a new dimension:

7 inch
Diagonal display size!

Panasonic

the GT707 from Panasonic.

GT707

7 inch | **800 x 480 dots** | **TFT** | USB | **SD**

7 inch wide-screen color display in a small body

CE

Black

NEW!

IP65

GT707
Programmable Display

Panasonic

122mm

186mm

The first 7-inch touch panel which fits into the panel cut-out of a 5.7 inch touch panel

This way, the extremely user-friendly touch panel provides more display space while maintaining a slim design.
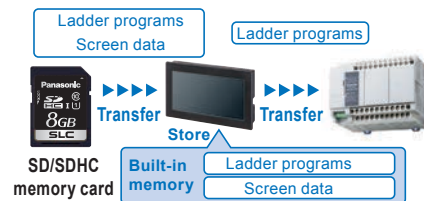
Model comparison

GT707 (7 inch) compared with GT32T-R (5.7 inch) from our previous compact model.

Nearly identical installation size!

Panasonic

Much bigger display area!

	GT32T-R	GT707
Resolution in dots	320 x 240	800 x 480
Colors	4094	65536
Installation size (in mm)	163.2 x 128.8	186 x 122
Display area (in mm)	115.2 x 86.4	153.8 x 85.6

High-resolution TFT color screen with 65536 colors and a long-life white LED backlight

The comfortable wide-screen LCD (800 x 480 pixels) displays images in high contrast without distracting dots or lines. The new GT model offers 16 times more colors and a resolution that is 5 times higher than that of the GT32T-R, for example.

Easy Monitor | ESC
GT
GT
GT
GT
Up | Down

Device information

Ladder programs
Screen data

Ladder programs

Panasonic
8GB
SLC

▶▶▶▶ **Transfer**

Store

▶▶▶▶ **Transfer**

SD/SDHC memory card

Built-in memory

Ladder programs
Screen data

Easy way to check the status of all connected devices at one glance

The device monitor lets you see the status of a PLC without having to go through a computer (Control FPWIN Pro). Simply start the device monitor from the system menu. No need for manual programming*.
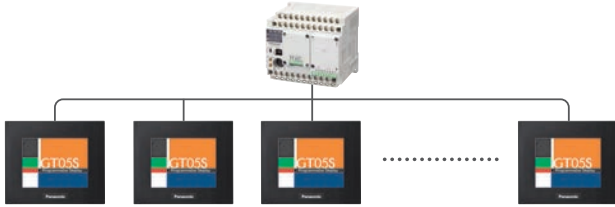
Transfer of program data

No computer needed to exchange PLC and GTWIN projects between the devices*.
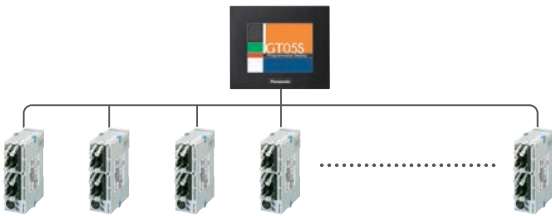
* except FP7

Features

1:N and N:1 communication

Up to 32 GT displays can be connected to one PLC unit.

Up to 31 PLC units can be connected to one GT unit.

Slot for SD/SDHC memory cards up to 32GB (class 10)

Can be used for:

- Up-/download of PLC programs
- Up-/download of GT applications
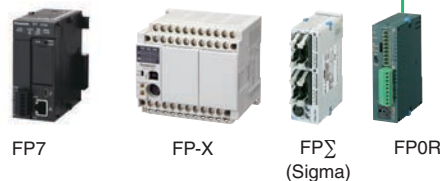- Recipe memory
- Data logging
- Alarm history

SDHC memory card

Alarm list

Alarm activation, check and recovery can be recorded and displayed.
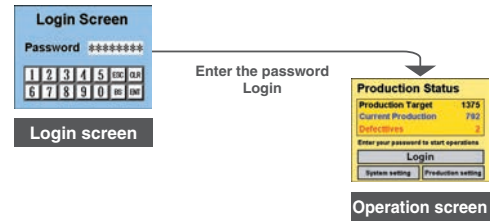
(GT12)

LINE A2 Alarm History

Simple connection and maintenance

The through function improves handling in combination with our FP Series PLC. Simultaneous operation of GT data transfer and PLC debugging is available by connecting your GT to a personal computer and to our FP Series PLC.
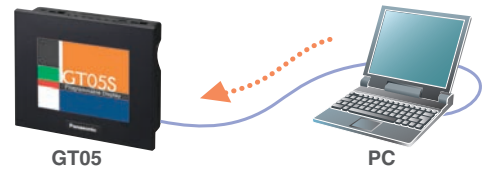
FP7   FP-X   FP∑ (Sigma)   FP0R

Security features

- Password protection

- Operation security

Login Screen
Password ********

Enter the password Login

Login screen

Production Status
Production Target   1375
Current Production   792
Defectives   2

Enter your password to start operations
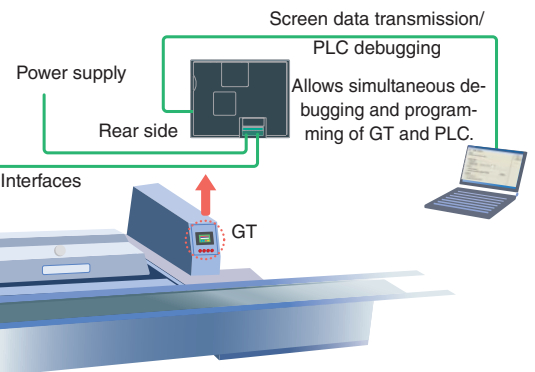
Login

System setting   Production setting

Operation screen

Up to 64 operators can set individual passwords, and up to 16 authorization levels can be set.

USB interface for programming

GT05   **PC**

Easy-to-use software GTWIN

Please see page 16 for more information.

Screen data transmission/ PLC debugging

Power supply

Allows simultaneous debugging and programming of GT and PLC.
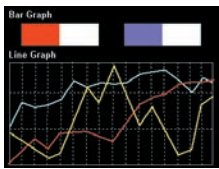
Rear side

Interfaces

GT

Switch languages

Conventionally, screens were created for each language. With the multi language function, data can be registered in up to 16 languages for each part. The text can be edited in GTWIN or Microsoft 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	諸多指教	안녕하A
000	SW1	1	1	1	1	1
000	SW1	2	2	2	2	2

Enhanced switch functions

- Custom switches: Design your own switches
- Multi-function switches: Save space on your screen
- Turning on/off switch display function: Display switches only when necessary

Wide variety of functions
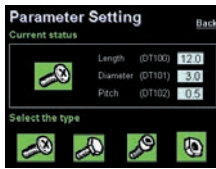
Graph function

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.
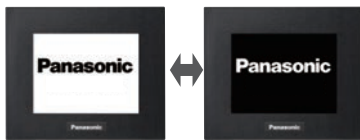(128 messages)

Recipe Function

Settings by product type and other data (up to 3600 words) can be transferred to the PLC, simplifying PLC programming.

The backlight can be controlled via PLC

The backlight color provides the operator with a clear visual cue of the system status.

ON!

FP Σ (Sigma)

GT01

Lights up
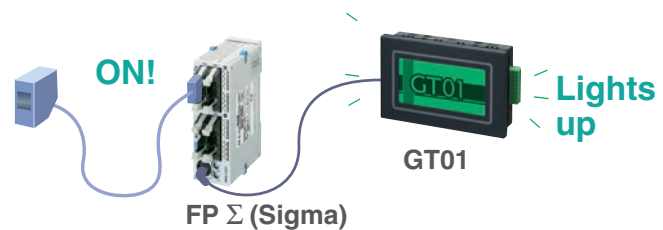
PLC data logging function

Values of PLCs, Eco-POWER METERS, etc. can be read and saved in CSV format on an SD memory card. This function serves as a simple logger to, for example, monitor power consumption data of Eco-POWER METERS or collect production quantity and operation status data from PLCs so that the data can be used for preparing monthly reports or problem analysis reports.

GT05   SD memory card   PC
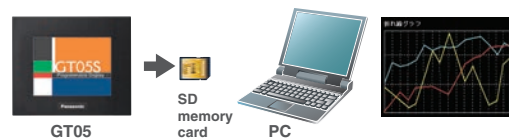
The trigger can be selected from among time, frequency (1 second to 24 hours), and conditions (external trigger). Data can be saved for up to 128 points, 60 generations, and 16 types.*

* Depends on the storage capacity of the SD memory card.

Reversing screen display for monochrome GTs

The black and white display on the screen can be reversed. This function is ideal for highlighting the screen display.
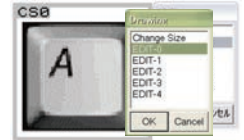

Extended line-graph function

Instantaneous display of graphs is possible for devices such as PLCs and Eco-POWER METERs and it is also possible to display graphs for the logged data saved to an SD memory card.

RS485

Software

GTWIN

Programming software for the GT series

GTWIN is a screen creation software designed for the GT series. You can design screens and download them to a GT touch panel, upload data from a touch panel or print them. You can compose messages and graphics. GTWIN comes with a host of pre-defined parts that make it easy for you to design screens quickly and easily, e.g. switches, lamps, clocks, keyboards, etc. Just drag and drop them onto your screen.
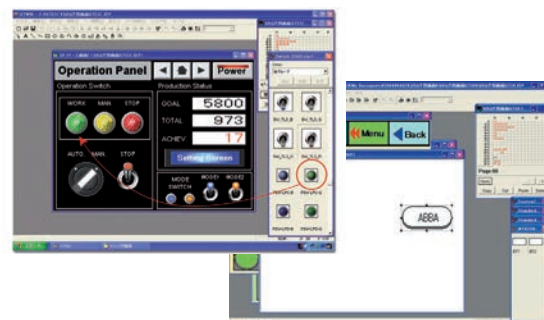

Up to 10 different languages in ONE project

The menu can be displayed in Japanese, English, Simplified Chinese, Traditional Chinese, Korean, German, Italian, Spanish and French.

Simply drag & drop parts

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

4096-color 3D buttons (for the GT family)

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

Firmware upgrading function

Automatically upgrade older firmware versions if desired.

GTWIN is supported by the current Windows firmware versions.

Versatile assistants: SD memory cards

Data logging on an SD memory card

All GT touch panels support data logging of process data on commercially available SD memory cards. The log files can contain up to 60000 data records and are saved in CSV format. Data can thus be logged without requiring extra software.

Display SD logging data graphically

Data logged on the SD card can be displayed graphically. You can choose among the following time frames for display:
• Year (month unit)
• Month (day unit)
• Day (hour unit)
• Number of plots: The display begins with the first value of the hour specified.

Day
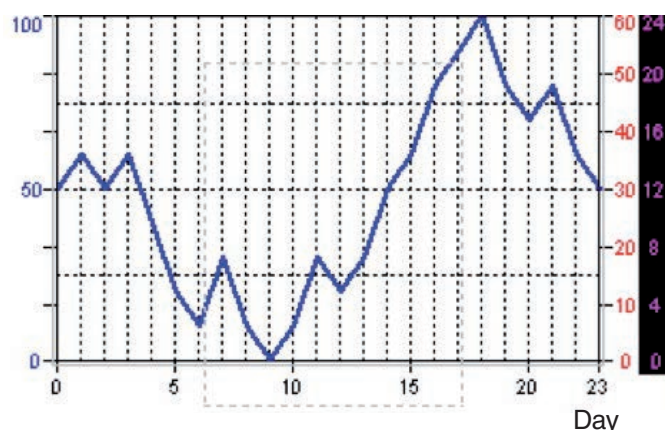
Store recipes on the SD memory card

Within the SD recipe area on the SD card, 100 recipe folders can be created. Each recipe folder can hold up to 64 recipe files. Each recipe file can contain a data set of up to 4096 ingredients (device values). All touch panels of the GT series support this function.

SD memory card as program memory card

You can save PLC programs on an SD memory card. Using the GT system menu, you can choose in which direction to copy the program. The data type compilation (*.FP) and the source file (*.PCD) are supported. All touch panels of the GT series support this function.

Save alarms on the SD memory card

The GT panel's alarm list can be saved as a CSV file on the SD card. All touch panels of the GT series support this function.

Compact and innovative:

the HM500 series from Panasonic

HM504

- 4.3 inch TFT color screen (16:9)
- Resolution 480 x 272 dots (WQVGA), 64K colors
- 128MB flash memory
- USB port with host interface 2.0
- 1 expansion slot for plug-in
- 147 x 107mm (W x H)

HM507

- 7 inch TFT color screen (16:9)
- Resolution 800 x 480 dots (WQVGA), 64K colors
- 128MB flash memory
- 2 USB ports with host interface (1x host 2.0, 1x host 2.0 and 1.1)
- 2 expansion slots for plug-ins
- 187 x 147mm (W x H)

HM510

- 10.4 inch TFT color screen (16:9)
- Resolution 800 x 600 dots (SVGA), 64K colors
- 256MB flash memory
- 2 USB ports with host interface (1x host 2.0, 1x host 2.0 and 1.1)
- 2 expansion slots for plug-ins
- 287 x 232mm (W x H)

HM513

- 13.3 inch TFT screen (16:9)
- Resolution 1200 x 800 dots (WXGA), 64K colors
- 256MB flash memory
- 2 USB ports with host interface (1x host 2.0, 1x host 2.0 and 1.1)
- 2 expansion slots for plug-ins
- 336 x 267mm (W x H)

General specifications

- Serial port software configurable: RS232C/RS422/RS485
- 2 Ethernet ports with integrated switch
- Coating on all electronic boards
- Resistive touchscreen
- LED backlight

HM500 series: robust & innovative

Key features

The HM500 series combines state-of-the-art features and a top performance HMI in an outstanding design.
The ideal choice for satisfying a wide range of applications.

- Available sizes: 4.3 inch, 7 inch, 10.4 inch, 13.3 inch
- IP66 front panel
- Innovative, full-metal design
- Bright LED display with 64K colors
- 600MHz & 1GHz ARM cortex A8 processor
- Microsoft Windows CE 6.0 operating system
- Ethernet, USB, and integrated configurable serial ports
- SD card slot
- Gateway function, remote application control
  and online customer support
- Horizontal or vertical installation
- Low power consumption; with cooling system
- CE/UL certification
- Tropicalized electronics

Quality vector graphics

- Supports SVG vector graphics
- Dynamic object properties with tags
- Object properties accessible via Javascript
- Dynamic interaction between properties of
  different objects
- Animation
- TrueType font
- Large set of symbols and objects

Communication and Gateway

- Integrated web server, FTP server
- Integrated web browser
- Supports VNC technology for remote desktop
- E-mail alerts
- Gateway function between different protocols

HMWin: Programming environment

Key features

- Simple, intuitive interface
- Project tree resource navigation
- Data displayed in numeric format, bar graph, analog indicators and images
- Multilanguage support with import and export function for texts
- Data acquisition and display in line or bar graphs
- Alarm management and event history
- User group and password management
- Audit Trail recipe management
- Remote monitoring and control with Client-Server architecture based on Web technology (compatible with smartphones and tablets)
- Powerful JavaScript engine
- Large ready-to-use macro library
- Reports printable on USB printer and as a PDF file
- Advanced HMI objects: scheduler and event planning, rotating menus, RSS Feeds, IP camera input
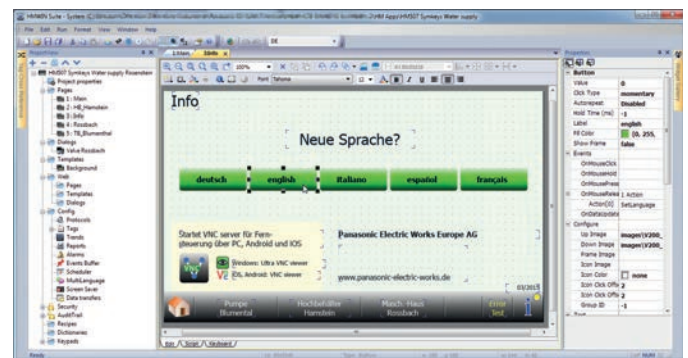- On-line and off-line simulation

Firmware

The current firmware and HMWin versions are available for download from our website www.panasonic-electric-works.de for free.

Two programming examples created with the software HMWin:
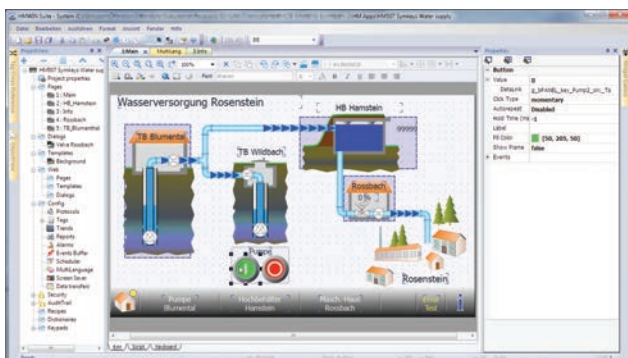
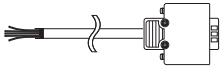Application for water supply
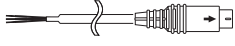

Application for language switching
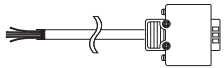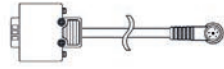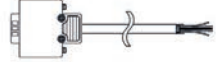
You can download more programming examples from our download center: https://www.panasonic-electric-works.com/eu/downloadcenter.htm

Touch panels

Product		Description				Part number	SD card slot
		LCD	Power supply	Communication port	Color		
	GT02M touch panel 3.8 inch	STN monochrome (white/red/pink backlight)	5V DC	RS232C	Black	AIG02MQ02D	
					Ash gray	AIG02MQ03D	
				RS422 (RS485)	Black	AIG02MQ04D	
					Ash gray	AIG02MQ05D	
			24V DC	RS232C	Black	AIG02MQ12D	
					Ash gray	AIG02MQ13D	
				RS422 (RS485)	Black	AIG02MQ14D	
					Ash gray	AIG02MQ15D	
				RS232C	Black	AIG02MQ22D	✓
					Ash gray	AIG02MQ23D	✓
				RS422 (RS485)	Black	AIG02MQ24D	✓
					Ash gray	AIG02MQ25D	✓
	GT02G touch panel 3.8 inch	STN monochrome (green/orange/red backlight)	5V DC	RS232C	Black	AIG02GQ02D	
					Ash gray	AIG02GQ03D	
				RS422 (RS485)	Black	AIG02GQ04D	
					Ash gray	AIG02GQ05D	
			24V DC	RS232C	Black	AIG02GQ12D	
				RS422 (RS485)	Black	AIG02GQ14D	
				RS232C	Black	AIG02GQ22D	✓
					Ash gray	AIG02GQ23D	✓
				RS422 (RS485)	Black	AIG02GQ24D	✓
					Ash gray	AIG02GQ25D	✓
	GT03T-E touch panel 3.5 inch	TFT color	24V DC	RS232C	Ash gray	AIG03TQ03DE	✓
				RS422 (RS485)		AIG03TQ05DE	✓
	GT03M-E touch panel 3.5 inch	TFT monochrome		RS232C		AIG03MQ03DE	✓
				RS422 (RS485)		AIG03MQ05DE	✓
	GT05M touch panel 3.5 inch	STN monochrome (white/red/pink backlight)	24V DC	RS232C	Pure black	AIG05MQ02D	✓
					Silver	AIG05MQ03D	✓
				RS422 (RS485)	Pure black	AIG05MQ04D	✓
					Silver	AIG05MQ05D	✓
	GT05G touch panel 3.5 inch	STN monochrome (green/orange/red backlight)	24V DC	RS232C	Pure black	AIG05GQ02D	✓
					Silver	AIG05GQ03D	✓
				RS422 (RS485)	Pure black	AIG05GQ04D	✓
					Silver	AIG05GQ05D	✓
	GT05S touch panel 3.5 inch	STN color	24V DC	RS232C	Pure black	AIG05SQ02D	✓
					Silver	AIG05SQ03D	✓
				RS422 (RS485)	Pure black	AIG05SQ04D	✓
					Silver	AIG05SQ05D	✓
	GT12M touch panel 4.6 inch	STN monochrome (white/red/pink backlight)	24V DC	RS232C	Pure black	AIG12MQ12D	✓
					Silver	AIG12MQ13D	✓
				RS422 (RS485)	Pure black	AIG12MQ14D	✓
					Silver	AIG12MQ15D	✓
	GT12G touch panel 4.6 inch	STN monochrome (green/orange/red backlight)	24V DC	RS232C	Pure black	AIG12MQ12D	✓
					Silver	AIG12MQ13D	✓
				RS422 (RS485)	Pure black	AIG12MQ14D	✓
					Silver	AIG12MQ15D	✓
	GT32M-R Bediengerät 5.7 inch	TFT monochrome	24V DC	RS232C	Pure black	AIG32MQ02DR	✓
					Silver	AIG32MQ03DR	✓
				RS422 (RS485)	Pure black	AIG32MQ04DR	✓
					Silver	AIG32MQ05DR	✓
	GT32T-R touch panel 5.7 inch	TFT color	24V DC	RS232C	Pure black	AIG32TQ02DR	✓
					Silver	AIG32TQ03DR	✓
				RS422 (RS485)	Pure black	AIG32TQ04DR	✓
					Silver	AIG32TQ05DR	✓
	GT32T-E touch panel 5.7 inch	TFT color	24V DC	RS232C	Ash gray	AIG32TQ03DE	✓
				RS422 (RS485)		AIG32TQ05DE	✓
	GT32M-E touch panel 5.7 inch	TFT monochrome		RS232C		AIG32MQ03DE	✓
				RS422 (RS485)		AIG32MQ05DE	✓

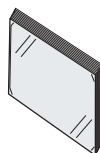| Product		Description				Part number	SD card slot
		LCD	Power supply	Communication port	Color		
	GT707 touch panel 7.0 inch	TFT color	24V DC	RS232C	Pure black	AIG707WCL1G2	✓
	HM504 touch panel 4.3 inch	TFT color	24V DC	RS232, RS485, RS422	Pure black	AIHM504	✓
	HM507 touch panel 7.0 inch	TFT color	24V DC	RS232, RS485, RS422	Pure black	AIHM507	✓
	HM510 touch panel 10.4 inch	TFT color	24V DC	RS232, RS485, RS422	Pure black	AIHM510	✓
	HM513 touch panel 13.3 inch	TFT color	24V DC	RS232, RS485, RS422	Pure black	AIHM513	✓

PLC connection cables

Touch panel	Part No.	Connection cable	PLC
GT series (24V DC, RS422/RS485) Not for GT707	AIGT81S2D	PLC connection cable (2m), 2 single wires + shielding wire — 9-pin Sub-D female	Siemens S7-200 series
GT series (24V DC, RS232C) Not for GT707	AIGT8192	PLC connection cable (2m), 3 single wires — 5-pin mini DIN plug, angled type **AIGT8193** (3m), **AIGT8194** (4m) and **AIGT8195** (5m) are also available.	Panasonic Electric Works FP series
GT series (24V DC, RS422/RS485) Not for GT707	AIGT8175	PLC connection cable (5m), 4 single wires + shielding wire — 8-pin mini DIN plug	Mitsubishi Electric FX series
GT series (24V DC, RS232C) Not for GT707	AIP81842	PLC connection cable (2m), 3 single wires — 9-pin Sub-D female	Panasonic Electric Works FP2SH COM port
GT707 (24V DC, RS232C)	AFC8513D	PLC connection cable (3m), 9-pin Sub-D female — 5-pin mini DIN plug, angled type	Panasonic Electric Works FP0R/2/-e/-Sigma/-X TOOL port
GT707 (24V DC, RS232C)	AFB85D018-2M	PLC connection cable (2m), 9-pin Sub-D female — 3 single wires **AFB85D018** (0,5m) is also available.	Panasonic Electric Works FP0R/FP-X/FPG COM port, FP7 TOOL port

Accessories

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

GT02	**AIG02800**
GT05	**AIG0T5800**
GT12	**AIG12800**
GT32-E/-R	**AIG32800**
GT707	**AIG7A07S01**

Waterproof packing
Waterproof packing (for replacement),
10 pieces in a set. Package includes one set.

GT02	**AIG02810**
GT03-E	**AIG03810E**
GT05	**AIGT05810**
GT12	**AIG12810**
GT32-E/-R	**AIG32810E**

Set of mounting brackets
5 sets with 2 mounting brackets each.
Package includes one set.

GT03-E	**AIG12830**
GT05	**AIGT28321**
GT12/GT02	**AIG12830**
GT32-E/-R	**AIGT32830**

Backup batteries for GT touch panels

GT series (except GT707)	**AFPX-BATT**
GT707	**AFPABAT001**
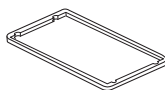
Screen data transmission cable

Programming cable, USB type A to USB type B for GT05 and GT32-E/-R
Part No.: **AFPXCABUSB2**

Programming cable, USB type A to Mini USB (5 pins) for GT02/03-E/12/707
Part No.: **CABMINIUSB5**

North America	Europe	Asia Pacific	China	Japan

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