Panasonic ideas for life



http://www.nais-e.com/plc/ Panasonic... the new name for **NAIS**

Matsushita Electric Works, Ltd.

The new 4.7-inch STN 256-color Progratical Structure touch panel displays clear and beautiful images. Image: Color Structure 4.7 inch STN 256 Structure 32 chars. 320× 240 Switch 85422 Through 240 Switch

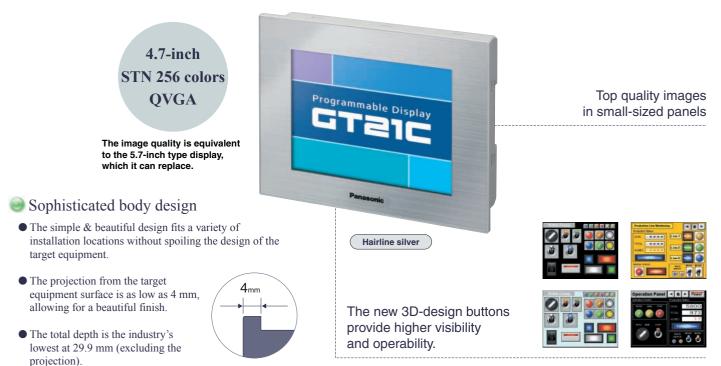




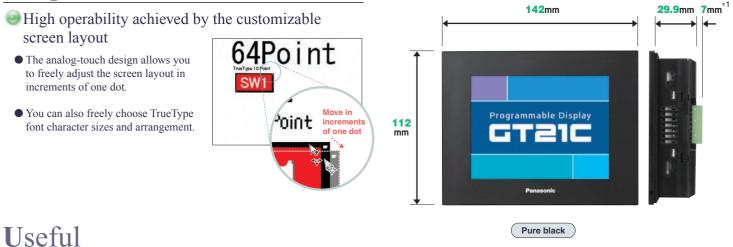
Beautiful

CE

Beautiful images



Simple



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

Environmentally friendly lower power consumption design

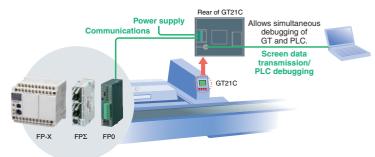
• Lower power consumption of 4.8 W or less: Approx. 50% of our conventional model (GT30)



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

"TrueType fonts"



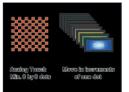
With the TrueType fonts, the screen can display up to 768 characters at a time (32 chars. x 24 lines) and therefore be used effectively.

"Flow Display function"



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

"Analog-touch design"



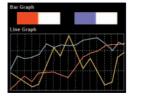
You can freely position switches as small as 8 x 8 dots.

"Alarm list"



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

"Graph function"



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

"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.

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.

画	部	日本語	英語	簡体字中国語	繁体字中国語	韓国語
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	안녕하/
000	SW1	1	1	1	1	1
000	SW1	2	2	2	2	2



There are two types of communication (RS232C/RS422).

Connection with PLCs of a variety of manufacturers is possible. (Please refer to the compatible PLC list.)

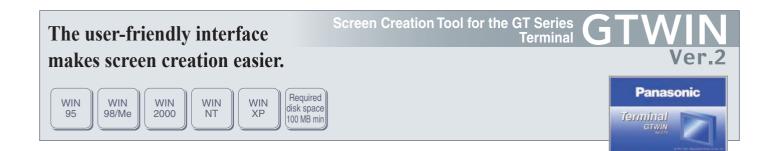
The 24-V RS422 type can be connected at a maximum distance of 500m.

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

*2: 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. • The panel face protection sheet for GT21C is available as an option.

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



Simply drag and drop parts.

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



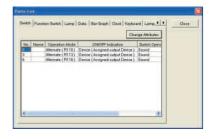


In the previous version, the required parts library had to be selected from the menu every time it was needed. The new version displays a list of parts libraries, making them more user-friendly.



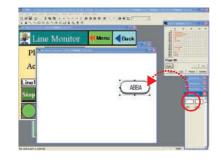
What a useful function! - Batch parts editing

You can display an attribute list of parts placed on screens and directly modify them in the list.



Just drag and drop your original parts to be registered.

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





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





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

Firmware upgrading function (GT01/GT11/GT21C)

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.

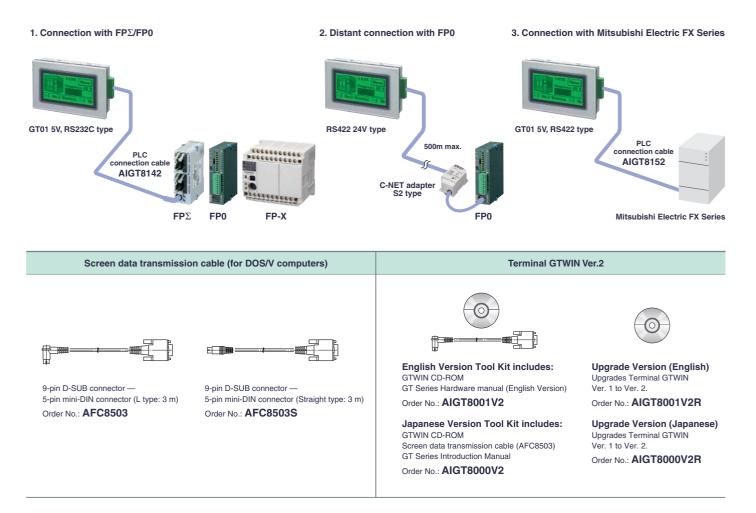
You can download a trial version of GTWIN Ver. 2 from the following Website. (Login as NAIS FAN members is required.) http://www.nais-e.com/plc/uacs/plc_dl_soft.html

System Configuration and Options

Model	Rated voltage	Communi- cation port	Order	No.	PLC connection cable
GT01	5V DC	RS232C	Ash gray> Order No.: AIGT0030H1	<pre> <black> Order No.: AIGT0030B1</black></pre>	Cable (2 m) for direct connection to the TOOL port of FP-e/FP0/FP2/FP2/FP2SH/FP-M 5-pin mini-DIN connector — 4 single wires + Shielding wire Order No.: AIGT8142 Note: This cable is for GT01, and power is supplied through the TOOL port.
		RS422 (RS485*)	<pre></pre>	<pre> </pre>	Cable (2 m) for direct connection to the Mitsubishi Electric FX Series 8-pin mini-DIN connector — 6 single wires Order No.: AIGT8152 Note: This cable is for GT01, and power is supplied through the TOOL port
	24V DC	RS232C	<pre></pre>	<pre> <black> Order No.: AIGT0030B</black></pre>	Cable (2 m) to connect GT01 (24 V DC type) to our PLC 5-pin mini-DIN connector — 3 single wires + Shielding wire Order No.: AIGT8162 (The 5 m and 10 m types are also available.)
		RS422 (RS485*)	<ash gray=""> Order No.: AIGT0032H</ash>	<black> Order No.: AIGT0032B</black>	→
GT11	24V DC	RS232C	<pre><ash gray=""> Order No.: AIGT2030H</ash></pre>	<pre> <black> Order No.: AIGT2030B</black></pre>	Cable (2 m) to connect GT11 to our PLC 5-pin mini-DIN connector — 3 single wires + Shielding wire Order No.: AIGT8162 AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
		RS422 (RS485*)	<pre> <ash gray=""> Order No.: AIGT2032H</ash></pre>	<pre></pre>	Cable (5 m) for connection to the Mitsubishi Electric FX Series 8-pin mini-DIN connector — 4 single wires Order No.: AIGT8175
GT21C	24V DC	RS232C	Silver> Order No.: AIGT2230H	Selack> Order No.: AIGT2230B	Cable (2 m) to connect GT11 to our PLC 5-pin mini-DIN connector — 3 single wires + Shielding wire Order No.: AIGT8162 AIGT8165 (5 m) and AIGT8160 (10 m) are also available.
		RS422 (RS485*)	<silver> Order No.:</silver>	<pre></pre>	Cable (5 m) for connection to the Mitsubishi Electric FX Series 8-pin mini-DIN connector — 4 single wires Order No.: AIGT8175
GT30M		A>	Ash gray, STN monochrome LCD> Order No.: AIGT3100H	<black, lcd="" monochrome="" stn=""> Order No.: AIGT3100B</black,>	Cable (2 m) for connection to the TOOL port of FP-e/FP0/FP2/FP2SH/FP-M 5-pin mini-DIN connector — 3 single wires Order No.: AIGT8192
GT30C	– 24V DC	RS232C	Ash gray, STN color LCD> Order No.: AIGT3300H	<pre><black, color="" lcd="" stn=""></black,></pre>	Cable (2 m) for connection to the COM. port of FP1/FP2/FP2SH/FP-M/FP10SH, TOOL port of FP10SH, and computer communication unit of FP2/FP3 9-pin D-SUB connector — Open wire Order No.: AIP81842

* For connection by RS485, refer to the Manual.

Connection examples



Options



■GT01 panel face protection sheets GT01 panel face prot (option) 10 sheets in a set ction sheets Order No.: AIGT080



■GT21C mounting parts 5 sets of GT21C mounting parts (2 parts/set) (Package includes one set.) Order No.: AIGT38321



■GT01/GT11 mounting parts 5 sets of GT01/GT11 mounting parts (Package includes one set.) (4 parts/set) Order No.: AIGT083

■GT30 connectors

Order No.: AIGT184

GT30 COM. port connectors 5 connectors in a set (One piece is installed on main unit.)



sheets GT30 panel face protection sheets (for replacement) 10 sheets in a set (One sheet is installed on main unit.) Order No.: AIGT380



■GT01/GT11 connectors GT01/GT11 COM. port connectors 5 connectors in a set (One piece is installed on main unit.) Order No.: AIGT084



■GT30 panel face protection ■GT30 replacement backlight Replacement backlight for GT30 color/monochrome LCD Order No.: AIGT382



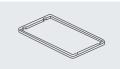
■GT11 panel face protection sheets GT11 panel face protection sheets (option) 10 sheets in a set Order No.: AIGT280



GT30 mounting parts 5 sets of GT30 mounting parts (2 parts/set) (Package includes one set.) Order No.: AIGT383



GT21C panel face protection sheets GT21C panel face pro ection sheets (option) 10 sheets in a set Order No.: AIGT28021



Waterproof packing Waterproof packing (for replacement), 10 pieces in a set (One sheet is installed on main unit.) GT01 Order No.: AIGT081 GT11 Order No.: AIGT181 GT21 Order No.: AIGT28121

GT30 Order No.: AIGT381

Specifications and Product Types

Specifications

			GT01 spe	cifications	GT11 spe	cifications	GT21C sp	ecifications	GT30 spec	ifications	
Item				24V/RS232C 24V/RS422	RS232C	RS422	RS232C	RS422	Monochrome LCD type	Color LCD type	
ate	d voltage	5 V	DC				24 V DC		202 ()po	Lob type	
pera	ating voltage range	4.5 to 5.	5 V DC				21.6 to 26.4 V DC				
owe	er consumption	1W max.	1.1W max.	2W max.	2.4W max.		4.8W max.		10W max.		
mbi	ent temperature		0 to	50 C	0 to	50 C	0 to 5	i0 C *1	0 to 50 C *2		
mbi	ent humidity	20% RH to 85% RH (No dew condensation)									
Storage temperature		-20 C to 60 C									
	ige humidity	10% RH to 85% RH (No dew condensation)									
'ibra	tion resistance	10 Hz to 55 Hz (1-minute cycle): Double amplitude: 0.75 mm, 10 minutes in each of the X, Y, and Z directions									
hoc	k resistance				98 1	n/s2 min:4 times in each	of the X, Y, and Z direc	tions			
	rposed noise ression				e 9 · 1	width of 50 ns, 1 s betw en the ferrite device supp	1 11 0	C #			
	onmental tance			IP65 (in the initial stage		-proof from the front of en reattaching the panel,			e panel contact surface.)		
lass	3		Approx	. 160 g	Approx	. 230 g	Approx.	330 g	Approx. 4	140 g	
D	isplay device			chrome LCD	STN monoc		STN co	lor LCD	STN monochrome LCD	STN color LCE	
R	lesolution		128 (W) x	64 (H) dots	240 (W) x	96 (H) dots	320 (W)	x 240 (H) dots	320 (W) x 24		
	isplay color			(black/white)	Two colors (colors	Two colors (blue/white)	16 colors	
D	isplayable area			35.18 (H) mm	96.0 (W) x 3	· · · · · · · · · · · · · · · · · · ·		74.0 (H) mm	117 (W) x 88		
Ľ	acklight										
+	ont types	3-color LED backlight (green, red, orange)/White LED backlight * No need for replacement White LED backlight CFL * Average life: 50,000 hours (25 Fixed font: 8 x 8, 16 x 8, and 16 x 16 dots Characters can be displayed in the original, doubled, or quadrupled width or height. TrueTure forte								50,000 nours (25 C	
	anguages	TrueType fonts, Windows TrueType fonts Japanese, English, European languages, Simplified Chinese, Traditional Chinese, Korean									
	araphics	Straight lines, continuous straight lines, squares, circles, ovals, arcs, elliptic arcs, fan shapes, elliptic fan shapes, beveled squares, bitmaps									
	lumber of creens		creen No. t	60 screens hat can be set: s No. 00 to FF	Approx. 250 screens Screen No. that can be set: Base screens No. 00 to 3FF				Approx. 220 screens (Monochrome LCD type) Approx. 160 screens (Color LCD type) Screen No. that can be set: Base screens No. 00 to		
2					The number of scr	eens that can be register	ed varies according to th	ne registered contents.			
	art functions			tches, data, bar graphs, rds, and line graphs	Messages, lamps, switches, data, bar graphs, clocks, keyboards, line graphs, and alarm list parts						
С	Other functions	Recipe,		y, write device, and switching	Recipe, flow display, write device, and language switching				Recipe, message scroll	ing, and write devi	
	Clock function			vs external clock data. puilt-in clock function.)	n clock function.) Provided with a built-in clock function. (Can also refer to and display a PLC clock.) * For G111, G121C buy a commercially available i						
	ontrast adjustment	Contrast can be adjusted by using the touch panel.									
CC	ommunication settings	The communication conditions of dedicated software and PLC can be automatically set by connecting a cable.									
D	ebugging function	Through function (PLC can be debugged from a personal computer by connecting the computer to the TOOL port and the PLC to the COM. port.)									
S	creen creation			Ded	licated software should	be used. Applicable OS	: Windows® 95 (OSR2 of	or later)/98/Me/2000/NT	T/XP		
ouch	n key resolution				Free layout	(8 dots min)			16 (W) x	12 (H)	
ouch	key operation force		0.5 N	max.	0.5 N	I max.	0.8 N	V max.	0.98 N	max.	
ouch	n key life					1 million op	erations min				
	Communication standard	K5252C	Baud rate: 9	Conforms to <u>RS232C</u> RS422 ,600/19,200/ /115,200 bits/s	Baud rate: 9	Conforms to RS422 0,600/19,200/ ,800/115,200 bits/s		Conforms to RS422 0,600/19,200/ 0/115,200 bits/s	Conforms t Baud rate: 9, 38,400/57,600/	600/19,200/	
OM. port	External communication conditions					Data bits: Parity: Non Stop b		1			
	Protocol	Our FP series supported/General-purpose serial interface supported/Other companies' PLC supported (Refer to the compatible PLC list for manufacturers and models.)							models.)		
	Connector					Connector term	inal base (8 pins)		Connector termin	nal base (5 pins)	
	Communication standard					Conforms	to RS232C				
DOL port	Communication					Data bi Parity: Non	9,200/115,200 bits/s ts: 8 bits e, Odd, Even				
		Stop bits: 1 bit									
	Protocol	Our decirated protocol									
	Connector					5-pin n	nini-DIN				

*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 and FP programmer II is being connected to the TOOL port, the usable range is 0 to +40 C.

Conformance to the UL/cUL standards

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

Memory

Screen data and GTWIN configuration setting data

ltere	GT01 specifications	GT11 specifications	GT21C specifications	GT30 specifications						
Item	GTOT Specifications	GTTT specifications	GT2TC specifications	Monochrome LCD type	Color LCD type					
User's memory	F-ROM	F-ROM	F-ROM	F-ROM	F-ROM					
Memory capacity	384 KB	1.375 MB	6.5 MB	1.5 MB	3.25 MB					
Clock data and PLC d	Clock data and PLC device storage data (24 words max.)									

Item	GT01 specifications	GT11 specifications GT21C specifications		GT30 specifications
Memory	_	SR	SRAM	
Memory backup	_	Lithium battery (replaceable) CR2032, commercially available * Not included. Buy it separately.		Lithium battery (replaceable) CR2032, commercially available (included)

Models and prices

Produce name			Description		Order No.		
		RS232C type	Black	AIGT0030B1			
		5 V DC	KS252C type	Ash gray	AIGT0030H1		
		5 V DC	RS422/RS485 type	Black	AIGT0032B1		
GT01: Main unit	STN monochrome LCD		K3422/K3465 type	Ash gray	AIGT0032H1		
aror. Main unit	STIV monochronic LCD		RS232C type	Black	AIGT0030B		
			KS252C type	Ash gray	AIGT0030H		
		24 V DC	PS422/PS495 tring	Black	AIGT0032B		
			RS422/RS485 type	Ash gray	AIGT0032H		
			DS222C true	Black	AIGT2030B		
NT11. Main unit	STN monochrome LCD		RS232C type	Ash gray	AIGT2030H		
GT11: Main unit	STN monochrome LCD	24 V DC	D.C.422/D.C.405.4mm	Black	AIGT2032B		
			RS422/RS485 type	Ash gray	AIGT2032H		
			DS222CL	Black	AIGT2230B		
			RS232C type	Silver	AIGT2230H		
GT21C: Main unit	STN color LCD	24 V DC		Black	AIGT2232B		
			RS422/RS485 type	Silver	AIGT2232H		
				Black	AIGT3100B		
	STN monochrome LCD		RS232C type	Ash gray*	AIGT3100H		
GT30: Main unit		24 V DC		Black	AIGT3300B		
	STN color LCD		RS232C type	Ash gray*	AIGT3300H		
erminal GTWIN Ver. 2 apanese Version Tool Kit	Composed of: • Screen creation tool "Terminal GTWIN Ver. 2 Japanese Version" (CD-ROM) • Screen transmission cable (AFC8503, for DOS/V computers) • GT Series Introduction Manual (Japanese Version)						
erminal GTWIN Ver. 2 English Version							
	1			Japanese Version	AIGT8001V2 AIGT8000V2F		
erminal GTWIN Upgrade Version	Upgrades the screen creation tool "Terminal GTWIN Ver. 1" to "Ver. 2". English Version						
	Cable (5-pin mini-DIN connectors, 2 m) for direct connection between GT01 (5 V DC/RS232C type) and the TOOL port of our PLC (FP-e/FPS/FP2/FP2SH/FP-M)						
LC direct connection cable	Cable (8-pin mini-DIN connectors, 2 m) for direct connection between GT01 (5 V DC/RS422 type) and the Mitsubishi Electric FX Series						
	Cable (8-pin mini-DIN connectors, 5 m) for direct connection between GT11/GT21 (RS422 type) and the Mitsubishi Electric FX Series						
	Cable (One end: 5-pin mini-DIN connector, The other end: Open wire, 2 m) to connect GT01 (24 V DC type)/GT11/GT21 to our PLC						
	Cable (One end: 5-pin mini-DIN connector, The other end: Open wire, 5 m) to connect GT01 (24 V DC type)/GT11/GT21 to our PLC						
-	Cable (One end: 5-pin mini-DIN connector, The other end: Open wire, 5 m) to connect GT01 (24 V DC type)/GT11/GT21 to our PLC Cable (One end: 5-pin mini-DIN connector, The other end: Open wire, 10 m) to connect GT01 (24 V DC type)/GT11/GT21 to our PLC						
PLC connection cable	Cable (One end: 5-pin mini-DIN connector, The other end: Open wire, 2 m) for direct connection between GT30 and the TOOL port of our PLC (FP-e/FP0/FPS/FP2/FP2SH/FP-M)						
_	Cable (One end: 9-pin D-SUB connector, The other end: Open wire, 2 m) for connection to the COM. port of FP1/FP2/FP2SH/FP-M/FP10SH, TOOL port of FP10SH, and computer communication unit of FP2/FP3						
		1	nd GT series displays (One cable is included in the Terminal GTWIN Ver. 2 Japan	ese Version Tool Kit)	AFC8503		
Screen transmission cable					AFC8503		
	Screen data transmission cable (5-pin mini-DIN straight type) between GTWIN and GT series displays GT01 nanel free protection cheets. 10 sheets in a set (option)						
	GT01 panel face protection sheets 10 sheets in a set (option) GT11 panel face protection sheets (for range grant), 10 sheets in a set						
Panel face protection sheets	GT11 panel face protection sheets (for replacement) 10 sheets in a set						
	GT21C panel face protection sheets (for replacement) 10 sheets in a set						
	GT30 panel face protection sheets (for replacement) 10 sheets in a set * One sheet is factory-attached to the GT panel.						
-	GT01 waterproof packing (for replacement) 10 pieces in a set * One piece is factory-attached to the GT panel.						
Vaterproof packing	GT11 waterproof packing (for replacement) 10 pieces in a set * One piece is factory-attached to the GT panel.						
-	GT21C waterproof packing (for replacement) 10 pieces in a set * One piece is factory-attached to the GT panel. GT30 waterproof packing (for replacement) 10 pieces in a set * One piece is factory-attached to the GT panel.						
Replacement backlight	Replacement backlight for				AIGT381 AIGT382		
Acupting porto	5 sets of GT01/GT11 moun				AIGT083		
Mounting parts	5 sets of GT21C mounting				AIGT28321 AIGT383		
	5 sets of GT30 mounting parts (2 parts/set)						
Connectors	GT01/GT11/GT21C COM. port connectors 5 connectors in a set				AIGT084 AIGT184		
	GT30 COM. port connectors 5 connectors in a set						

• White LED backlight types are also available for the GT01 and GT11. When ordering, please change the 6th digit of the part number to "1". (Example: AIGT0130B1 and AIGT2130B) (This is a custom order item.)

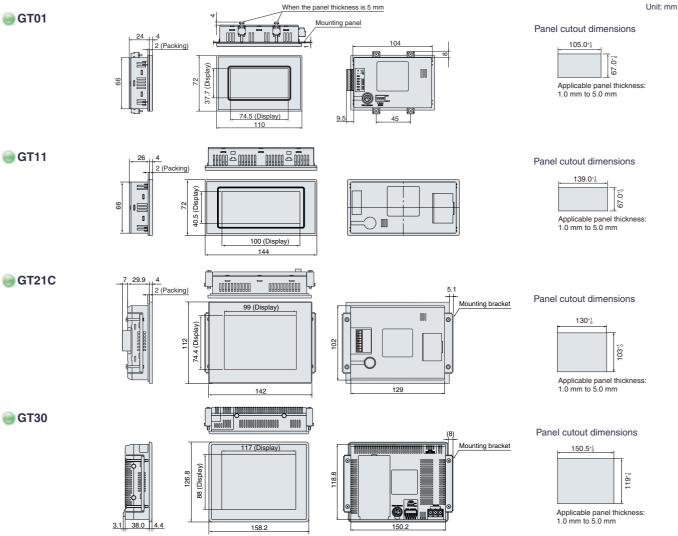
PLC Compatibility

GTWIN Ver. 2.7 (as of December 2005) . Compatible -: Not compatible

GT model	G	Г01	GT11/GT21C		GT30
PLC model	RS422 type	RS232C type	RS422 type	RS232C type	(Monochrome/Color)
Matsushita Electric Works FP Series			(•
Mitsubishi Electric MELSEC-FX0N	•	● *1	•	● *1	● *1
Mitsubishi Electric MELSEC-FX1S	•	● *1	٠	● *1	● *1
Mitsubishi Electric MELSEC-FX1N	•	● *1	٠	● *1	● *1
Mitsubishi Electric MELSEC-FX1NC	•	● *1	٠	● *1	● *1
Mitsubishi Electric MELSEC-FX2N	•	● *1	•	● *1	● *1
Mitsubishi Electric MELSEC-FX2NC	•	● *1	٠	● *1	● *1
Mitsubishi Electric MELSEC-FX3UC	•	● *1	٠	● *1	● *1
Mitsubishi Electric MELSEC-A (Computer link)	-	•	-	•	•
Omron SYSMAC-C Series	((•
ALLEN-BRADLEY DF1 Protocol	((•
Siemens S7-200 Series	((•
LG MASTER-K (Cnet) Series	((•
Modbus (RTU Mode)	((D	•
Toshiba Machine PROVISOR TCmini Series	•	-	•	-	-
Yokogawa Electric FA-M3 Series	(•	(•	•
KEYENCE KV-700, KV-1000	•	-	•	-	-
General-purpose serial interfaces (Purpose-built boards/Other controllers)	Comman	d response*2	(•	•

*1: An RS422/RS232C conversion adapter or unit is required.

*1. AN DOMADS CONVERSION AUXPIET OF UNIT IS REQUIRED.
 *2: Notes for using the general-purpose serial communication mode of GT01 GT01 control signals (RS, CS) are not available. Note the following points when you use Duplex 1 or Duplex 2.
 Commands transmitted from a microprocessor board during a GT01 data transmission cannot be accepted.
 When there is no response from GT, retry the command transmission.



series

