

**Programmable Display GT Series** ARCT1B294E '07.12

New

All LCD pictures in this catalog are simulated images.

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



## 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.

	Check the filter status to open a window
1	ок
	NG

#### 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.



#### 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.



Abnormal temperature in Machine No. 3. Check the coolant level.

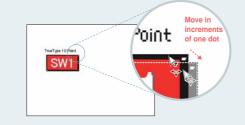
#### Quick response

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.





#### 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

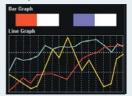
#### "Write Device function"

an Terreter (Personal)		1.134
lares.		Canon
Freedown Par Frank provident in radio		
Sector Lines		
Cillineer		
* Sector Associate (*)		
Deather 1		
C Mart Danstord		
* Sectors of a value of the second se	Deather	
Deather 3		
(F. Massa Tamahalad		
C Designed under Valid Lincollers		

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



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



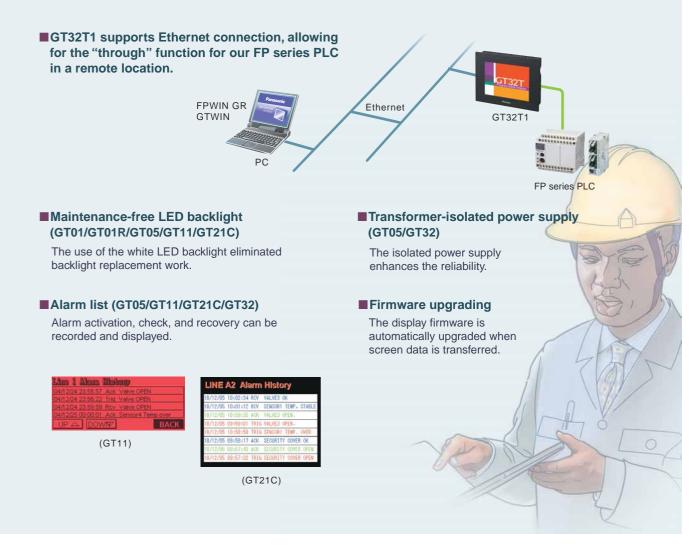
You can identify the production or operation status in line or bar graph form.

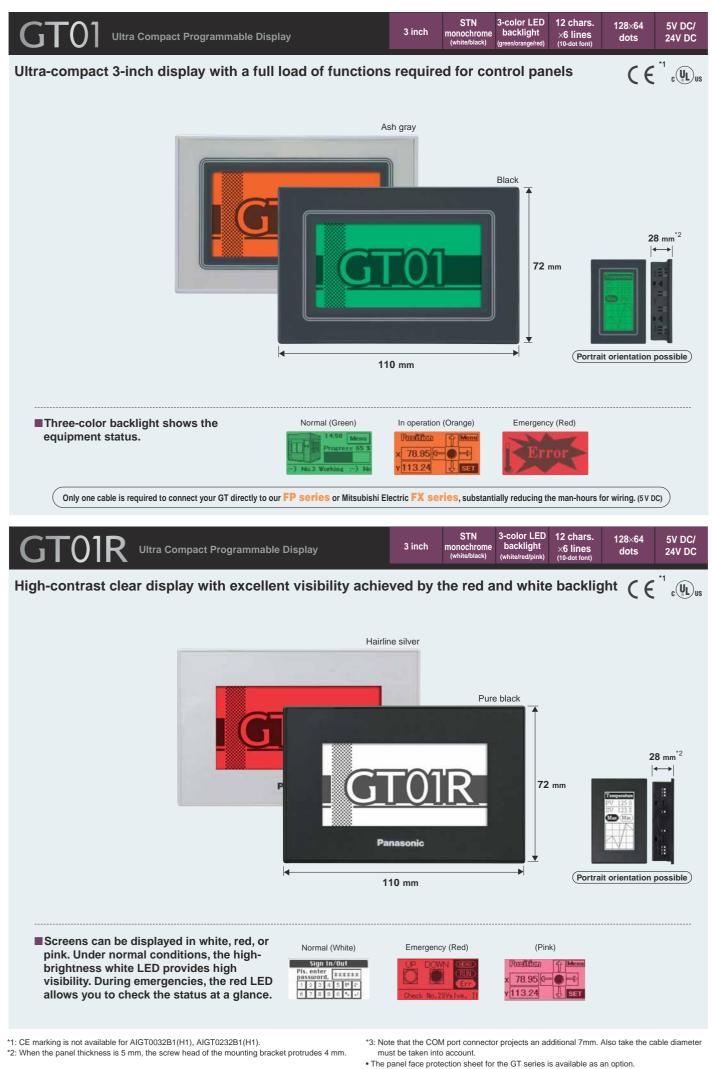
#### "Flow Display function"



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

## Simple maintenance





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## Multilingual menu and dialog

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



## Simply drag and drop parts.

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



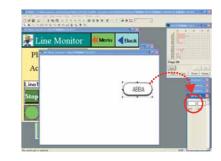
## More user-friendly parts libraries

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

A Gourp					en kter	
۲	۲	۲	۲	۲	۲	
	(Decision)	revideo.	PIN-DCA	TRACTION .	(D)	
revuroa	PER-UPD-G	1944/19-0	HIVUDA	794420-W	PROCEDUC	
	۲		۲	0	۰	
TEN-PERA	rewrend	HM-PER-G	rourona	TEWPERW	Poween'r	

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

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



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

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



## 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.

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

## Buy: www.ValinOnline.com | Phone 844-385-3099 | Email: CustomerService@valin.com

			GT01/GT01R/GT	05/GT11/GT21/GT32
Company	Series	Model	RS232C type	RS422 (RS485) type*2
		FP-X	0	0
		FPΣ		0
Matsushita		FP-e	0	0
Electric Works	FP series	FP0	0	0
		FP2	0	0
		FP2SH	0	0
		FX0N	0	0
		FX1S	0	0
		FX1N	0	0
	FX series	FX1NC		0
		FX2N		0
		FX2NC		0
		FX3UC		0
-		Q00CPU	0	
		Q01CPU	0	
		Q00JCPU		
		Q00HCPU	0	
Mitsubishi Electric*1	<b>.</b> .		÷	
LICOLIC	Q series	Q25HCPU	0	
		Q12HCPU	0	
		Q06HCPU	0	
		Q02HCPU	0	
		Q02CPU	0	
		A1N	0	
		A2N	0	
		A3N	0	
		A1S	0	
	A series	A1SJ	0	
		A2SH	0	
		A1SH	0	
		A2CCPU24	0	
		C200H	0	
		C200HS	0	
		C500	0	
		C500F		
		C1000H		
		C2000		
			-	
		C2000H		
		C1000HF	0	
		C20H	0	
	C series	C28H	0	
		C40H	0	
		C120	0	
		C120F	0	
		CQM1-CPU42	0	
		SRM1-C02	0	
		CPM2A	O	
		CPM1-20CDR-A	0	
		CQM1H-CPU21	O	
Omron*1		CPM2C	0	
		CPM2B	0	
		C200HE-CPU32-Z	0	
		C200HE-CPU32	0	
		C200HG-CPU33-Z	0	
		C200HG-CPU33	0	
		C200HG-CPU53-Z	0	
		C200HG-CPU53	0	
		C200HX-CPU34-Z	0	
		C200HX-CPU34		
	$\alpha$ series	C200HX-CPU54-Z		
		C200HX-CPU54		
		C200HE-CPU42-Z	0	
		C200HE-CPU42	0	
		C200HG-CPU43-Z	O	
		C200HG-CPU43	0	
			0	
		C200HG-CPU43		
		C200HG-CPU43 C200HG-CPU63-Z	0	

			GT01/GT01R/GT0	5/GT11/GT21/GT32
Company	Series	Model	RS232C type	RS422 (RS485) type <sup>*2</sup>
		C200HX-CPU64-Z	O	
		C200HX-CPU64	0	
	α series	C200HX-CPU65-Z	0	
		C200HX-CPU85-Z	0	
		C200HX-CPU64-Z	0	
		CV500	0	
	CV series	CV1000	0	
		CVM1	0	
		CS1H-CPU67	0	
		CS1H-CPU66	0	
Omron*1		CS1H-CPU65	0	
		CS1H-CPU64	0	
	CS1 series	CS1H-CPU63	0	
		CS1G-CPU45	0	
		CS1G-CPU44	0	
		CS1G-CPU43	0	
		CS1G-CPU42	0	
			0	
		CJ1H		
	CJ1 series	CJ1M	0	
		CJ1G	0	
	CP1 series	CP1H CP1L	0	
Toshiba	TC mini series		0	0
Machine*1	TC mini series		Models with RS232 port	Models with RS485 port
		F3SP59-7S	0	
		F3SP58-6S	0	
		F3SP58-6H	0	
		F3SP53-4S	0	
		F3SP53-4H	0	
Yokogawa		F3SP38-6S	0	
Electric*1	FA-M3 series	F3SP38-6N	0	
		F3SP35-5N	0	
		F3SP28-3S	0	
		F3SP28-3N	0	
		F3SP25-2N	0	
		F3SP21-0N	0	
		KV-10/16/24/40	0	
			0	0
KEYENCE*1	KV series	KV700	_	_
		KV1000	0	0
ALLEN-BRADLEY*1	Micro Logic series	MicroLogix1000	0	
Models that support protocol	SLC-500 series	SLC-5/03	0	
piotocol		SLC-5/04	0	
		CPU222	0	0
		CPU216	0	0
Siemens*1	S7-200 series	CPU215	0	0
		CPU214	0	0
		CPU212	0	0
		80S	0	
		200S	0	
LG*1	MASTER-K series	300S	0	
		1000S	0	
Modbus*1	Models that support RTU protocol	*3	0	0
	MEW dedicated protocol	*3	0	0
Contra purpose serial	me w ucuidateu protocol	5		<i><i>w</i></i>

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

\*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.

 $\odot\colon$  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.)

 $\times$ : 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.

## ■ Main Unit and Tool Software

Description					
Product name	LCD	Power supply	Communication port		Part number
			RS232C	Black	AIGT0030B1
		5V DC	102320	Ash gray	AIGT0030H1
		37 60	RS422 (RS485)	Black	AIGT0032B1
GT01 Main unit	STN monochrome		10422 (10403)	Ash gray	AIGT0032H1
	(green/orange/red, backlight)		RS232C -	Black	AIGT0030B
		24V DC	102320	Ash gray	AIGT0030H
		247 00	RS422 (RS485)	Black	AIGT0032B
			10422 (10403)	Ash gray	AIGT0032H
			RS232C	Pure black	AIGT0230B1
		5V DC	102320	Hairline silver	AIGT0230H1
		37 00	RS422 (RS485)	Pure black	AIGT0232B1
GT01R Main unit	STN monochrome		10422 (10403)	Hairline silver	AIGT0232H1
OTOTIV Main unit	(white/red/pink, backlight)		RS232C	Pure black	AIGT0230B
		24V DC	K32320	Hairline silver	AIGT0230H
		24V DC	RS422 (RS485)	Pure black	AIGT0232B
			K3422 (K3403)	Hairline silver	AIGT0232H
			P6000C	Black	AIGT2030B
GT11 Main unit*1	STN monochrome	241/ 00	RS232C	Ash gray	AIGT2030H
GTTT Main unit"	(green/orange/red, backlight)	24V DC	DC 400 (DC 405)	Black	AIGT2032B
			RS422 (RS485)	Ash gray	AIGT2032H
			Donno	Pure black	AIG05MQ02D
OTOFILLS I	STN monochrome		RS232C	Hairline silver	AIG05MQ03D
GT05M Main unit	(white/red/pink, backlight)	24V DC		Pure black	AIG05MQ04D
			RS422 (RS485)	Hairline silver	AIG05MQ05D
	STN monochrome (green/orange/red, backlight)	24V DC	RS232C -	Pure black	AIG05GQ02D
				Hairline silver	AIG05GQ03D
GT05G Main unit			RS422 (RS485)	Pure black	AIG05GQ04D
				Hairline silver	AIG05GQ05D
		24V DC	RS232C	Pure black	AIG05SQ02D
				Hairline silver	AIG05SQ03D
GT05S Main unit	STN color			Pure black	AIG05SQ04D
				Hairline silver	AIG05SQ05D
				Pure black	AIGT2230B
	STN color 24V DC		RS232C	Hairline silver	AIGT2230H
GT21C Main unit		24V DC		Pure black	AIGT2232B
			RS422 (RS485)	Hairline silver	AIGT2232H
				Pure black	AIG32MQ02D
			RS232C	Hairline silver	AIG32MQ03D
GT32M Main unit	STN monochrome	24V DC		Pure black	AIG32MQ03D
			RS422 (RS485)	Hairline silver	AIG32MQ04D
				Pure black	AIG32MQ03D
			RS232C	Hairline silver	AIG32TQ02D
GT32T0 Main unit	TFT color	24V DC		Pure black	AIG32TQ03D
			RS422 (RS485)	Hairline silver	AIG32TQ04D
					AIG32TQ05D
			RS232C	Pure black	AIG32TQ12D
GT32T1 Main unit	TFT color	24V DC		Hairline silver	
			RS422 (RS485)	Pure black	AIG32TQ14D AIG32TQ15D
Terminal GTWIN Ver.2 Tool kit* <sup>2</sup>	English version	GTWIN CD-ROM GT Series Technical Manua	l (English version)	Hairline silver	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

## ■Cables

PLC connection cable	э
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Programmable Display	Connection cable	PLC	
GT01/GT01R (5 V DC, RS232C)	(GT side) (PLC side)	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)			

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

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

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

#### Options





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

		Раскаде іг
GT01	Part No.: AIGT080	GT01,
GT01R	Part No.: AIGT080R	GT01F
GT05	Part No.: AIG05800	GT05
GT11	Part No.: AIGT280	GT11
GT21	Part No.: AIGT28021	GT21
GT32	Part No.: AIG32800	GT32

Waterproof packing Waterproof packing (for replacement), 10 pieces in a set Package includes one set. One set is installed on main unit. 01. D1R Part No.: AIGT081 05 Part No.: AIG05810 Part No.: AIGT181

Part No.: AIGT28121

Part No.: AIG32810



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

Part No.: AIGT083



GT01/GT01R/GT11 Spare connector

Part No.: AIGT084

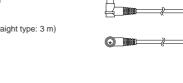
COM. port connectors, 5 connectors in a set One piece is installed on main unit.

GT05/GT21C/GT32 GT05/GT32 mounting parts 5 sets of GT21C/GT32 mounting parts (2 parts/set) Package includes one set.

Part No.: AIGT28321

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

Part No.: AFPX-BATT



• Tool port panel extension cable

Part No.: AFC8532

# **GT**series

		GT01 / GT01R GT05M / GT05G GT05S GT11								
	Item			GT05M / GT05G			GT11			
R	t dueltage		24V/RS232C 24V/RS422	RS232C RS422	RS232C	RS422	RS232C	RS422		
	ated voltage perating voltage range	5 V DC e 4.5 to 5.5 V DC			24 V DC 21.6 to 26.4 V DC					
· ·	ower consumption		2W max.	2.4W max.		V max.	2.4W ma	ax.		
	ver supply unit isolation metho		_		er isolation					
	nbient temperature	e		0 to	50°C					
	nbient humidity			,	condensation at 25°C)	)				
	orage temperature orage humidity				0 60°C					
			10 to 85% RH (No condensation at 25°C) 10 to 55 Hz (1-minute cycle):							
Vii	bration resistance			Double amplitude: 0.75 mm, 10 minut	• •	, and Z directions				
	nock resistance			98 m/s <sup>2</sup> min: 4 times in each						
	perposed noise			V [P-P] min, pulse width of 50 ns, 1 µs betw AIGT0030H1: When the ferrite device supp			,			
	vironmental	IP65		Dust-proof and drip-proof from the front of th			,	e)		
	sistance		(	*When reattaching the panel, i						
Ma	ass	Approx	160 g		Appro	ox. 230 g				
	Display device		chrome LCD	STN monochrome LCD	1	olor LCD	STN monochro			
) A	Resolution		64 (H) dots	( )	240 (H) dots		240 (W) x 96 (	· ,		
Display	Display color	,	olack/white)	2 colors (black/white)		6 colors	2 colors (black	,		
	Displayable area	GT01: 3-color LED (	35.18 (H) mm (green, orange, red)	73.0 (W) x 3 GT05M: 3-color LED (white, red, pink)	55.2 (H) mm		96.0 (W) x 38.4 3-color LED (green,	. ,		
	Backlight	GT01R: 3-color LEI *No need for	D (white, red, pink)	GT05G: 3-color LED (green, orange, red) *No need for replacement		te LED or replacement	/White LE *No need for rep	ED		
		Fixed (GTWIN) : 8 x 8, 1	16 x 8, and 16 x 16 dots				Fixed (GTWIN) : 8 x 8, 16 x	x 8, and 16 x 16 dots		
	Font types	1, 2, 4, or 8 times	be displayed in the s width or height.	Fixed (GTWIN) : 8 x 8, 7 Characters can be displayed in the	e 1, 2, 4, or 8 times w	idth or height,	Characters can be d 1, 2, 4, or 8 times w	idth or height.		
		TrueType (GTWI	IN): 10 to 64 dots : 10 to 64 dots	TrueType (GTWIN): 10 to 240 d			TrueType (GTWIN): Windows (R): 10			
	Languages		I	l English, Korean, German, French, Spanish,	Italian. Simplified Ch	inese. Traditional Chin		10 04 4010		
	Graphics	Stra		straight lines, squares, circles, ovals, arcs,				s		
	Number of screens*3	Approx. 16	60 screens	Approx. 240 screens	Approx. 1	180 screens	Approx. 250	screens		
S	Screen No. that can be set			Base screens: No. 0 to 3FF,	Keyboard screens: N	lo. 0 to 7				
Functions	Part functions	Messages, lamps, swite clocks, keyboards	ches, data, bar graphs, s, and line graphs	Messages, lamps, switche	es, data, bar graphs, c	clocks, keyboards, line g	graphs, and alarm list pa	rts		
Ľ	Other functions	Recipe, flow disp and languag		Recipe, flow disp	Recipe, flow display, write device, alarm record, alarm list, and language switching					
	Clock function	Refers to and displays (Not provided with a b		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 adjustmen Automatic commu nication settings		Contrast can be adjusted by using the touch panel.           The communication conditions of dedicated software and PLC can be automatically set by connecting a cable.							
	Debugging function	1		ted between a PC and PLC allows the PLC	to be debugged witho	out a direct connection				
	Screen creation	Windows® 95 (OSR2 or late	ld be used. Applicable OS: ter)/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/Vi						
-	ouch key resolution uch key operation force		N max		(8 dots min) N max		0.5 N m	<u></u>		
	uch key operation force	0.5 1			perations min		0.3 N III	ax		
	Communication		Conforms Conforms	Conforms Conforms	Conforms	Conforms	Conforms	Conforms		
	standard	to RS232C to RS422	to RS232C to RS422	to RS232C to RS422 Baud rate: 9,600/19,200/3	to RS232C	to RS422	to RS232C	to RS422		
С	OM. External	n								
	ort			Data bits: 7 or 8 bits, Parity: N						
	Protocol	Our FP series sup	ported/General-purpo	se serial interface supported/Other compan	ies' PLC supported (F	Refer to the compatible	PLC list for manufacture	rs and models.)		
	Connector				inal base (8 pins)					
	Communication standard Communication		orms to RS232C)	US	B1.1		Tool port (Conform			
	conditions with	Data bita O bita Davita Mar	D/115,200/230,400 bps*5 ne, Odd, Even, Stop bits: 1 bit	-	_		Baud rate: 9,600/19,200/11 Data bits: 8 bits, Parity: None, O			
tra	lata Insfer Protocol				ited protocol					
inte	erface Connector	5-pin m	nini-DIN	USB T	YPE-B		5-pin mini	-DIN		
	Ethernet port*6	3			_					
	er's memory	294			ROM 12.29	00 l.L	1 275 kb	1.5		
	emory capacity	364 1	kbyte	2,048 kbyte		38 kbyte RAM	1,375 kb	yte		
	emory backup	-	_	AFPX	y (replaceable) -BATT ne with product.		Lithium battery (r CR2032, commerc * Does not come	ially available		
<ul> <li>*1. When the unit is being installed in a horizontal orientation or FP programmer II is I connected to the TOOL port, the usable range is 0 to +45°C.</li> <li>*2. When the unit is being installed in a horizontal orientation, the usable range is 0 to *3. The number of screens that can be registered varies according to the registered context.</li> </ul>			usable range is 0 to +40°C. *5. A US	KB (approx. 30 sec),	Maximum registrable n	, mono), Maximum sound number of sound data iter d to achieve a communic	ms: 128			

## Conformance to the UL/cUL standards

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

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.

