



GRAPHIC OPERATION TERMINAL

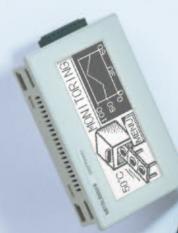






Colorful Powerful Simple

A versatile range of graphic terminals that fit to a diverse range of applications, realizing affordability with basic functionality!



Mitsubishi Electric Corporation Himeji Works is a factory certified for ISO14001 (standards for environmental management systems) and ISO9001(standards for quality assurance management systems)











## GT10

A range of sizes, colors and connection methods to suit your needs.

#### Reasons why the GT10 series is becoming popular all over the world:

#### Functionality

- -Connect directly to multiple servo amplifiers or inverters
- -Enhanced alarm functions for alarm display,

history and scrolling

- -Easy to use device monitor, recipe function and clock function
- -Multi-language switching
- -Multi-unit connection (up to 16 units)
- -Firmware updates available from the screen design software,

GT Works3



- Combining affordability with functionality
- Offering a range of screen colors
- Pre-installed OS for immediate use





Siz	e		3.7	<b>4.5</b> -inch			
Fra	ame color Black frame White frame		Black	Black frame			
Display colors		Green Orange Red	White Pink Red	Green Orange Red White Pink Red		Green Orange Red	White Pink Red
Conne	RS-422 (24 VDC)	GT1020-LBD	GT1020-LBDW	GT1020-LWD	GT1020-LWDW	GT1030-LBD	GT1030-LBDW
ection me	RS-232 (24 VDC)	GT1020-LBD2	GT1020-LBDW2	GT1020-LWD2	GT1020-LWDW2	GT1030-LBD2	GT1030-LBDW2
ethod	RS-422 (5 VDC FXSeries only)	GT1020-LBL	GT1020-LBLW	GT1020-LWL	GT1020-LWLW	GT1030-LBL	GT1030-LBLW

#### GT16,GT15,GT12,GT11-Taking display solutions to the next level!



GT11 model
Enhanced with basic functions
for stand alone applications



GT12 model Standard functions with built-in Ethernet



GT15 model
Wide range of uses
packaged or in a network



GT16 model

With a variety of integrated functions, such as Ethernet and multimedia

5.7-inch

Flexible and Easy to Use

GT1050 ¢ GT1055



GT1050-QBBDWhite/Blue 16 scales



GT1055-QSBD256Colors

-inch
Compact with Vivid Display

GT1040 / GT1045



GT1040-QBBDWhite/Blue 16 scales



GT1045-QSBD256Colors

#### Wide Screen Display



GT1030-LWD Green
GT1030-LWL Green
GT1030-LWDW White

Easy Connection!

GT10-C□R4-8PC

Cable with terminal block connector for GT1020 and GT1030 (RS-422, Only for FX PLCs)

#### **Serial Multi-drop Connection Unit**



**GT01-RS4-M** 

Maximum 16 GOT1000 series units Maximum 500m connection length

page 8.>>>

SIZE

		4.7	-inch	<b>5.7</b> -inch			
White	frame	Black	frame	Black frame			
Green Orange Red	White Pink Red	White/Blue 16 scales	256Colors	White/Blue 16 scales	256Colors		
GT1030-LWD	GT1030-LWDW	CT4040 OPPD	GT1045-QSBD	CT4050 OPPD	CT4055 OCDD		
GT1030-LWD2	GT1030-LWDW2	GT1040-QBBD	G11045-Q3DU	GT1050-QBBD	GT1055-QSBD		
GT1030-LWL	GT1030-LWLW	-					



A versatile range of graphic terminals that fit to a diverse range of applications, realizing affordability with basic functionality!

# 5 - inch

## GT1050 / GT1055

256 Colors or White/Blue 16 scales

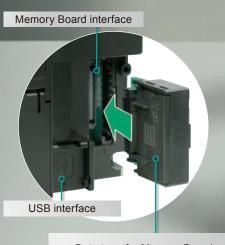
A GOT that incorporates GT10 functionality on a GT11 size display

#### Featuring:

- Bright STN screen with backlight
- 2 model types: 256 colors model and 16 scales monochrome(white & blue) model



GT1050-QBBD White / Blue 16 scales



Data transfer Memory Board GT10-50FMB



GT1055-QSBD 256 colors

Screen Type

Screen Resolution

Backlight

Touch Switch

User Memory (Project Data)

Timer

Connection Port

Other functions

GT1050

**5.7**"

320 dots 240 dots STN White/Blue 16 scales 16×16 dots Matrix 50 /Screen **3**мв

Built-in

RS-422 RS-232

Transparent mode

Multi-unit connection

OS preinstalled

Versatile Layout

GT1055

5.7"

320 dots 240 dots

STN 256 colors 16×16 dots Matrix 50 /Screen



Built-in

USB RS-422 RS-232

Transparent mode

Multi-unit connection

OS preinstalled

Versatile Layout



## GT1040 / GT1045

256 Colors or White/Blue 16 scales

Same resolution as the 5.7" GT1050 / GT1055, but in a smaller package

#### Featuring:

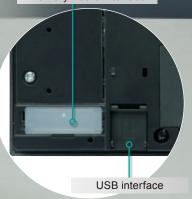
- Bright STN screen with LED backlight
- 2 model types: 256 colors model and 16 scales monochrome (white & blue) model



GT1040-QBBD
White / Blue 16 scales



Memory Board interface



Data transfer Memory Board GT10-50FMB

Screen Type

Screen Resolution

Backlight

Touch Switch

User Memory (Project Data)

Timer

Connection Port

Other functions

GT1040



320 dots 240 dots



16×16 dots Matrix 50 /Screen



Built-in

RS-422 RS-232 Transparent mode

Multi-unit connection

OS preinstalled

Versatile Layout

GT1045

















A versatile range of graphic terminals that fit to a diverse range of applications, realizing affordability with basic functionality!

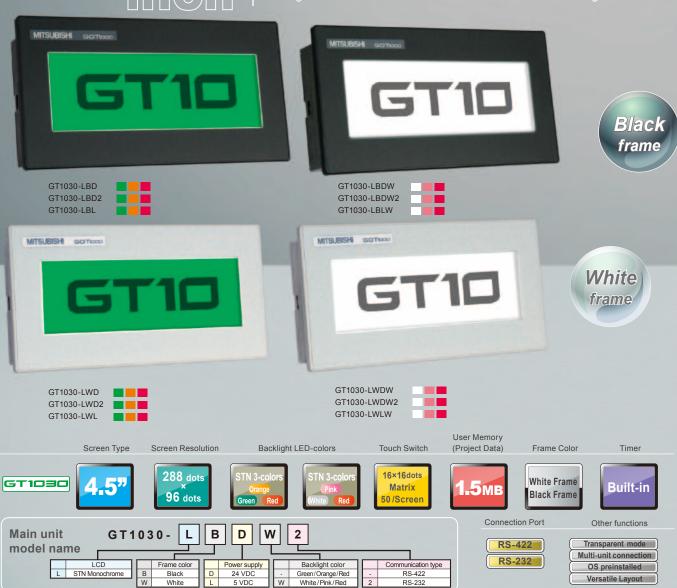
## 4-5-inch

### GT1030

Green/Orange/Red Version or White/Pink/Red Backlight Options

#### Featuring:

- 3-color LED backlight that offers a bright display even under external illumination
- High resolution wide screen for intuitive screen designs



#### ● GT1020 and GT1030 5 VDC Types



- 3-Color Backlight Screen for Vivid Data Visualization
- -Offering screen colors that show the operating status of the application.
- -Enabling specification of color and flashing of the backlight for each screen.
- -Backlight control via the connected PLC\*.

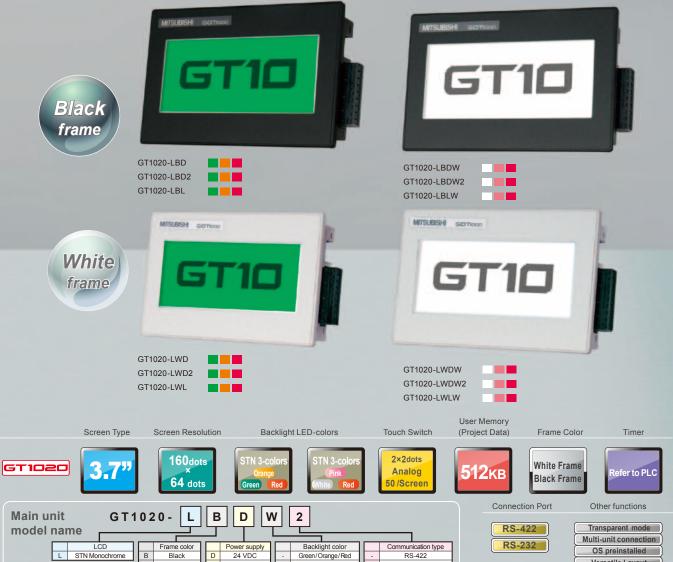


\* Color switching and backlight setting to ON, OFF or flashing



## GT1020

## 

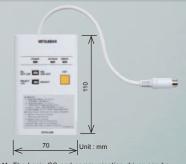


White/Pink/Red

#### • GT10-LDR Memory Loader

- -Has a compact design (70 × 110 mm), the GOT transfer cable can also be stored inside the body.
- -Can write standard monitor OS, communication driver and project data.
- -Can read project data and resource data.
- -Offers a simple switch type operation, where the write-protect switch prevents erroneous reading.
- Does not require a power supply as power is supplied from the GOT or personal computer.





Versatile Layout

- \*1: The basic OS and communication driver can be written only, and resource data can only be read.

  \*2: Resource data can only be read.



The GT10 series can handle communication with various different devices. Now the GT10 series can connect to even more devices over even greater distances.

## Multi-device connection and multi-



#### MODBUS/RTU communication now available

Modbus RTU master functionality is now included in GT10 series HMIs\*1. With this, up to 31 compatible Modbus devices such as inverters or temperature controllers can be connected to one GOT.



Note: GT Works3 or GT Designer2 Ver. 2.96A or later is required for this functionality.

- \*1. Refer to the compatibility table for supported products in tech news article -0039
- \*2. Depending on the connected device and communication speed

RS-485 Support Hardware Version GT105©: C or later, GT104©: from first version, GT1030: B or later, GT1020: E or later

Software Version GT Designer2 Ver. 2.93X or later, GT Works3

#### Multi-drop connection offers flexible system configuration

Want to increase the number of connected HMIs? Lengthen the connection distance?





#### To correspond with Multi-drop connectivity the GOT hardware has been updated.

RS-485 Support GT105□: C or later, GT104□: from first version, GT1030: B or later, GT1020: E or later GT Designer2 Ver. 2.93X or later, GT Works3

Please refer to Technical news Himeji works -0039C for more details

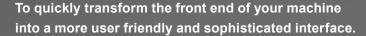


## terminal GOT display options

GOTs allow easy set up of inverter and servo parameters, as well as convenient monitoring and control functions.











**GOT1000 Screen Design Software** 

## GT Works3

## **7**points

to easily create new screens and transfer them to the GT10

#### Point 1 Work tree

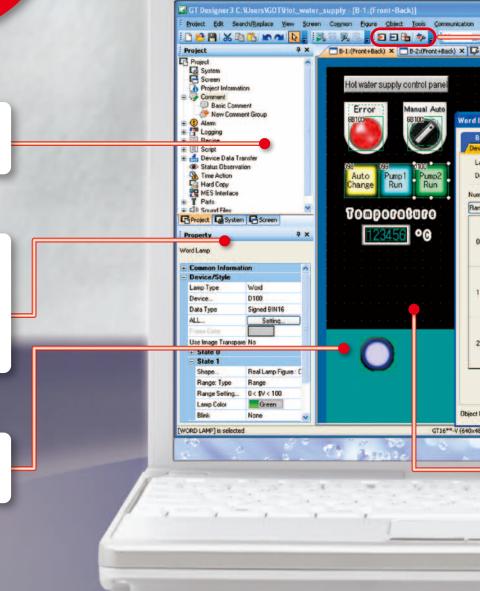
View the whole project, create a new screen, and add and delete screens – with ease.

#### Point 2 Property sheet

A selected object or graphic's settings are displayed in a tree view. Set colors, devices, etc., on the property sheet without opening a dialog box. When selecting the same objects or graphics, change color, character size, etc., all at the same time.

#### Point 3 Temporary area

Reduce workspace clutter by moving objects off the display area.





Visualization now offers much more than just what you see is what you get - This 3rd generation screen design software incorporates more user-friendly and customizable features to match users of all skill levels and provide the fastest, most intuitive method to create screen display programs we have ever created.



#### GT10 MODEL Common Functionality



#### **Choose your font!**

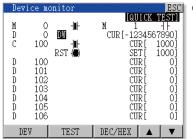
A variety of fonts are available including the standard type set and the windows type set. When windows fonts are selected, italic, underlined and underlined italic are also available.





#### **Device monitor function**

You can monitor the ON/OFF status of bit devices and values of word devices in FX/Q/QnA/A Series PLCs, as well as change the timer and counter values.





GT1020



#### **Alarm function**

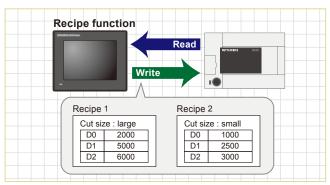
The GOT offers alarm display, alarm history and alarm scroll functions to enable display setting for each window. Language switching for alarms is also You can set alarm scroll, color and display position.





#### Simple data setting using the recipe function

The GOT has a built-in memory for up to 4,000 points (corresponding to 16-bit word devices). Using this memory the GOT can transfer a range of values to and from the PLC.





#### Simple set-up of language switching windows

Language switching windows can be easily created allowing one language to be switched to another, for example English to Japanese.

Up to 10 languages can be switched per comment group. Window switching can take place not only for languages but also for different applications.









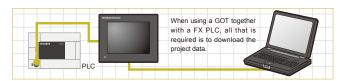
#### Preinstalled OS to enable immediate use

#### Pre-installed OS

The OS of the GOT is installed before shipment from the factory.

#### Communication driver

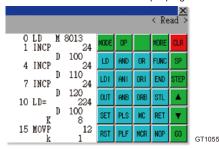
The communication driver mounted before shipment is provided for an FX Series PLC. To connect a Q/QnA/A Series PLC, microcomputer board or other supported PLC device you have to install the required communication driver available from GT Works3.



#### Sequence program editor

Applicable models: GT1050 / GT1055 GT1040 / GT1045

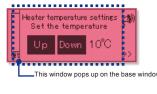
You can edit sequence programs in list format of the FX PLC in the GOT. This function is convenient for simple program changes on site.

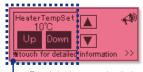


#### R

#### **Enhanced window functions**

- 512 windows are available.
- The window overlay function is available
- The window superimpose function is provided.





This window is composed on the base window



#### **Screen save function**

The backlight ON/OFF setting achieves energy-saving whilst enabling the GOT to function. The GOT screen can be controlled from the PLC, allowing backlight and alarm windows to be controlled in the event of an error.

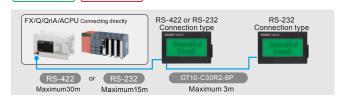




#### Multi-terminal connection\*3

Up to two GT10 units can be connected to one PLC unit even if the screen sizes differ. Thus enabling greater flexibility with terminal positioning.





GT1030 GT1020

- When RS-232 is used to connect the 1st unit\*

  Cable

  Made by customer

  RS-232

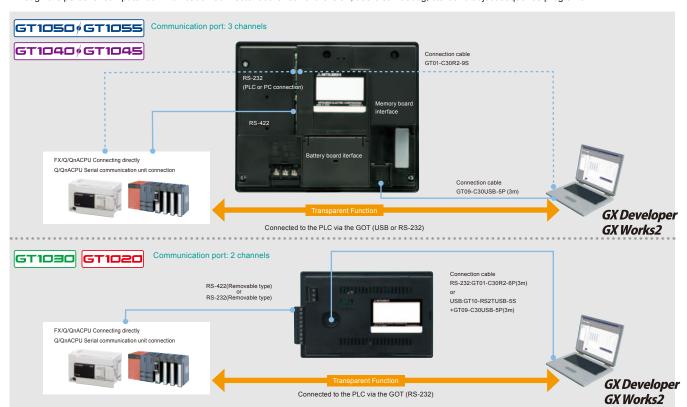
  Maximum15m

  FX,Q
- \*3: The transparent function is not available when multiple units are connected. The USB interface is not available for connection of two units.
  \*4: Refer to the connection manual for applicable models, required interface and compatibility with serial
- \*4: Refer to the connection manual for applicable models, required interface and compatibility with serial communication units (computer link units). The maximum length varies depending on the connected equipment. Refer to the connection manual for details.



#### Transparent function connecting the PLC via the GOT

Through the personal computer communication connector at the rear of the GOT, users can debug, start and adjust sequence programs.





#### **Versatile mounting**

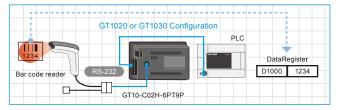
Both horizontal and vertical mounting is available for the GT10 Series causing minimum impact to the application design.





#### Connection to the bar code reader

The RS-232 connection port for personal computer can also be used to connect to a bar code reader. Data is automatically sent to specified address in the PLC.



Fun	ctions	GT10	GT11	GT15/GT16	
Mai	n unit functions				
		Boot OS installation	•	_	_
00	Pre-install	OS installation	•	_	_
US	rie-ilistali	Communication driver	(onlyFX)*1	_	_
		Japanese	•	_	_
		Chinese (Simplified)	_	_	_
Fon	t Pre-install	English	•	_	_
		Korean	_	_	_
Вос	t OS installation	_	•	•	
os	installation		•	•	•
Sta	rt from CF card		_	_	•
Proj	ject data	Usable also on memory board	★10	_	_
dow	nload/upload	Usable also on CF card	_	•	•
Res	ource data upload	Usable also on CF card	_	•	•
Trar	nsparent function		•	•	•
Mul	ti-channel function(N	_	_	•	
Gat	eway function	_	_	<b>●</b> *2	
ME	S interface function(0	-	_	<b>●</b> *2	
Mul	ti-unit connection (M	•	•	_	
Mul	ti-drop connection (N	MAX 16 unit)	•	•	•
Mod	dbus connection		•	•	•
Scri	een design				
_	Base screen		•	•	•
ecit	Superimposed wind	ow display	•	•	•
Specifications	Overlap window disp		•	•	•
ons	Dialog window displa		_	•	•
		BMP image display	•	•	•
	Supported	JPEG image display	_	_	•
	image data format	DXF data	•	•	•
	TOTTILAL	IGES data	_	•	•
		Standard fonts(basic)*3	•	•	•
		Standard fonts(optional)*4	_	_	•
		High-quality font	•	•	•
	Fonts	True Type font	•	•	•
		Windows® font	•	•	•
		Stroke basic font (extended)	_	_	•
		Stroke font (optional)	_	_	•
Con		Japanese	•	•	•
nmo		Chinese (Simplified)	•	•	•
Common settings	System language	German	_	•	•
tting	switcing	English	•	•	•
يپ		Korean	_		•

	ictions		GT10	GT11	GT15/GT16
Obj.	Extended alarm mon	itoring/display	_	_	<b>●</b> *2
Object settings	Alarm list display	•	•	•	
setti	Alarm history display		•	<b>●</b> *2	<b>●</b> *2
ngs	Floating alarm displa	у	•	•	_
	Parts display		•	•	<b>●</b> *2
	Parts movement		_	•	★2
	Panel meter display		•	•	•
	Level display		_	•	•
		Trend graph	•	•	•
		Historical trend graph*5	_	_	•
	Graph	Line graph,Bar graph	•	•	•
		Statistical graph	•	•	•
		Scatter graph	_	•	•
	Status observation fu	inction	•	•	•
	Extended recipe fund	tion	_	_	<b>●</b> *2
	Recipe function		•	<b>●</b> *2	<b>●</b> *2
	Time action function		•	•	•
	Report function	File saving in CF card	_	_	•
	Handan Konstina	File saving in CF card	_	_	•
	Hardcopy function	Print out	_	_	●*6
	Barcode function		•	•	•
	RFID function		_	•	•
9	Vertical display		•	•	_
Others	Sound output function	n*7	_	_	•
	External input/output	function*8	_	_	•
	Operation panel func	tion*8	_	_	•
	Screen call function		•	•	•
	Operation log function	File saving in CF card	_	_	•
	Document display fur				
	(Option function boar	d and CF card required)	_	_	•
	Logging function		_	_	•
		Project script	_	•	•
	Script function	Screen script	_	•	•
		Object script	_	_	•
	Device data transfer	function	-	_	•

Maintenance functions			
Device monitor function	•	_	_
System monitor function	_	•	•
List editor for A	_	●*9	•
List editor for FX	★10	<b>●</b> *11	•
Ladder monitor function	_	_	•
Intelligent unit monitor function	_	_	★12
Q motion monitor function	_	_	•
Servo amplifier monitor function	_	_	•
Network monitor function	_	_	•
Backup/restoration function	_	_	•
Maintenance time notification function*13	_	_	•

- \*1:You have to install the required communication driver available from GT Works3
- \*2:CF cards are necessary conditions maybe
- \*3:Suported GT10:European(Japanese),GT11,GT15:European(Japanese,Chinese)
- \*4:Chinese (Simplified),Chinese (Traditional),Japanese
- \*5:Combination of logging function
- \*6:Printer unit is required
- \*7:Sound output unit is required
- \*8:External I/O unit is required
- \*9:The GT115□-Q□BDQ is not applicable \*10:Supported only by GT105 $\square$  / GT104 $\square$
- \*11:Only serial communication type
- \*12:Not supported by the GT155□-Q
- \*13:Battery is required
- For further details on using these features please refer to the manual.

Chinese (Traditional)

Parts (object + figure) layer function

Screen switching

Station No. switching

•

#### **System Configuration**



Connection Cables

GT10-C10R4-8P(C) (1m) GT10-C30R4-8P(C) (3m) Connectable PLCs

Built-in port in FX1s, FX1N, FX2N, FX2NC or FX3U Series PLC or RS-422 type function extension

<sup>\*1:</sup> Please refer to the connection manual for details

#### **GT10** MODEL Performance Specifications

#### **GT10** common specifications

#### **General Specifications**

Item	Specification									
Ambient enerating		Display area: 0 to +50°C								
Ambient operating temperature	Excluding display area: 0 to +55°C (horizontal layout) or 0 to +50°C (vertical layout)									
Ambient storage temperature		-20 to +60°C (Ambient operating/storage humidity*1: 10 to 90% RH, no dew condensation)								
		Frequency	Acceleration	Amplitude	Vibration testing					
	Intermittent	5 to 9 Hz		3.5mm						
V/1 /2	vibration	9 to 150Hz	9.8m/s <sup>2</sup>		repeated 10-times					
Vibration resistance	Continuous	5 to 9Hz		1.75mm	in the X, Y and Z					
	vibration	9 to 150Hz	4.9m/s <sup>2</sup>		planes.					
		In co	onformance to II	EC 61131-2						
Impact resistance		In conformance to IEC 61131-2 (147 m/s², application period: 11ms, sine half-wave pulse, 3 times in each of X. Y and Z directions)								
Noise resistance	(Testing via	Noise voltage: 1,000 Vp-p, noise width: 1µs (Testing via a noise simulator whose noise frequency (range 30 to 100 Hz))								

Item	Specification
Maximum voltage*5	500 VAC, 1 min (between all power terminals and ground)
Insulation resistance*5	10 MΩ or more by 500 VDC insulation resistance tester (between all power terminals and ground)
Ambient atmosphere	Free from soot, corrosive gas, flammable gas, and high levels of conductive dusts
Protective structure against environment	Equivalent to IP67f (JEM 1030) (front face) (This structure does not provide protection against all environmental conditions in your site.)
Grounding*5	Class D grounding (insulation resistance: $100\Omega$ or less - When grounding is disabled, perform grounding to the panel.)
Others	Operating height above sea level*2: 2,000 m or less, Installation location: Inside control panel, Over-voltage category*3: Il or lower, Pollution level*4: Il or lower, Cooling Method: Self-cooling

#### GT1050/GT1055,GT1040/GT1045 specifications

**Performance specifications** 

		Item	GT1050-QBBD	GT1055-QSBD	GT1040-QBBD	GT1045-QSBD				
	Туре		STN monochrome (white and blue) liquid crystal	STN color liquid crystal	STN monochrome (white and blue) liquid crystal	STN color liquid crysta				
	Screen siz	e/resolution	5.7-inch/QVGA:3	320W×240H dots	4.7-inch/QVGA:320W×240H dots					
	Display siz	ze (mm)	115(W)×86(H) (5.7-inch)	horizontal display mode	96(W)×72(H) (4.7-inch) h	orizontal display mode				
	Number of	For 16-dot font	40 half-width characters x 15 lines or 20 full-width characters x 15 lines when horizontal mounting							
Display area	displayed characters	For 12-dot font	53 half-width characters x 20 lines or 26 full-width characters x 20 lines when horizontal mounting							
nopiay area	View angle	e(in horizontal display mode)	Right/Left:45° UP:20°,Down:40°	Right/Left:50° UP:40°,Down:70°						
	Contrast a	djustment		16 step adj	ustment					
	Display co	lors	monochrome 16 scales	256 colors	monochrome 16 scales	256 colors				
	Intensity		260[cd/m <sup>2</sup> ]	380[cd/m²]	300[cd/m²]	150[cd/m <sup>2</sup> ]				
	Life			Approx.50,000hours (operating	ambient temperature 25°C)					
	Туре		Cold-cathode fluorescer	nt tube (not replaceable)	White LED (n	ot needed)				
Backlight (no replacement	Function		With backlight OFF Backlight off time and scr		Backlight off time and scre	en save time can be set.				
required)	Life		Approx.75,000 hours (Time for operating ambient to		_					
	Maximum	number of touch keys		50 keys/screen (matrix consisti	ng of 15 lines × 20 columns)					
ouch panel	Minimum ı	unit of touch key size	Min. 16 × 16 [dots] (per key)							
ouch panel	Number of	simultaneous touch points	Max. 2 points							
	Life		1,000,000 times or more							
Buzzer output (buz	zer sound is	ssued when a touch key is pressed)	s	Single tone (Long sound, short sour	nd or no sound can be selected.)					
Memory	User mem	ory	Built-in flash ROM [To store project data (3 MB or less), OS, alarm history and recipe data]							
viernory	Life (numbe	r of times of writing)	100,000 times							
			GT11-50BAT lithium type battery							
Battery	Backed up	data	Clock data, alarm history and recipe data							
	Life		Replacement cycle: 5 years (at ambient operating temperature of 25°C)							
		Туре	RS-422 / RS-485, 1ch, Transmi	ssion speed: 115200/57600/38400	19200/9600/4800 bps,Connector shape:D-sub 9-pin (femal					
	RS-422 / RS-485	RS-485 Support hardware version	Corl		From first version					
		Application		Communication with o	connected devices					
Built-in interface	DO 000	Туре		n speed: 115200/57600/38400/192						
Jane III III CITAGE	RS-232	Application	Con (r	nmunication with connected device project data upload/download, OS i	es,connection to personal compute installation, transparent function)	r				
	USB	Туре		(full speed: 12 Mbps), device 1ch,		·				
		Application	Connection to per	rsonal computer (project data uploa		arent function)				
	Memory b	oard interface		GT10-50FMB (option)slot,						
Veight			0.7 [kg] (ex		0.45 [kg] (exc	cl. fittings)				
applicable softwar	re package		GT	Designer2 Version 2.101F or later						
Supply voltage				24 VDC(+10% to -15%),ripple						
uze (not replacea				1.04						
Power consumption of the consump			9.36W or less (390mA/24 VDC)   9.84W or less (410mA/24 VDC)   3.6W or less (150mA/24 VDC)   [4.32W or less (180mA/24 VDC)]   [2.9W or less (120mA/24 VDC)]							
Inrush current				15A or less (2ms,	at max. load)					
				Up to 5						

About the accessible machinery (sequencer, a bar-code reader), please refer to a GOT1000 series connection manual.

<sup>\*1</sup> Wet bulb temperature: 39°C or less
\*2 Never use the GOT in an environment that is pressurized to an atmospheric pressure above the height of sea level as the GOT may mulfunction.
\*3 The over-voltage category indicates the equipment is connected to a power distribution area between the public power distribution network and the machine site.
Category II is applied to equipment supplied by a fixed power source where the resistance voltage is 2,500 V in equipment whose rating is 300V or less.
\*4 This index indicates the level of conductive substances in the environment where the equipment is used.
Level 2 is applied to environments where only non-conductive pollution is generated but temporary conductive states can occur through condensation of the environment.
\*5 This cable cannot be used for GT1020-LBL(W).





#### GT1030/GT1020 specifications

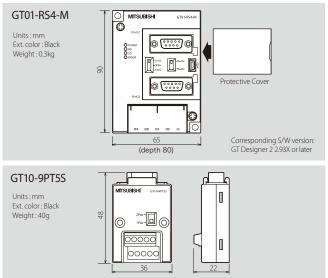
**Performance specifications** 

CITOII	nance s	Jecilica	LIUIIS		GT1030-	****					GT1020-	****		
	Item		LBD	LBD2	LBL	LBDW	LBDW2	LBLW	LBD	LBD2	LBL	LBDW	LBDW2	LBLW
			LWD	LWD2	LWL	LWDW	LWDW2	LWLW	LWD	LWD2	LWL	LWDW	LWDW2	LWLW
	Туре							nochrome (blac	k and white) liq	uid crystal				
	Screen size/F	Resolution			4.5-inch/288 (\	W) x 96 (H) dot	S		3.7-inch/160 (W) x 64 (H) dots					
	Display size (	1		109.42 (W) x 35.98 (H) (4.5-inch) in horizontal mounting						86.4 (W)	x 34.5 (H) (3.7-ir	nch) in horizon	tal mounting	
	Number of displayed	For 16-dot font			alf-width characters x 6 lines or 18 full-width characters x 4 x 6 lines when horizontal mounting							l-width charact inting	ers x 4 lines wh	nen horizontal
Display area	haracters	For 12-dot font				ines or 24 full-w orizontal mount		s				_		
	View angle			30 degrees leftward, 30 degrees rightward, 20 degrees upward and 30 degrees downward when horizontal mounting										
	Contrast adju	stment						16 :	steps					
	Intensity			200[cd/m <sup>2</sup> ]			300[cd/m <sup>2</sup> ]			200[cd/m <sup>2</sup> ]			300[cd/m <sup>2</sup> ]	-
	Life		App	orox. 50,000 ho	ours (Ambient o	perating temper	erature: 25°C),	Guarantee: 1 ye	ear (time when	contrast becor	mes 1/5 at ambi	ent operating t	emperature of 2	25°C)
Backlight (no	Color		3-color LE	D (green, oran	ge and red)	3-color L	ED (white, pin	k and red)	3-color LE	D (green, oran	ge and red)	3-color	LED (white, pin	k and red)
requiring	Brightness ad	djustment			8 s	teps						_		
replacement)	Function			Status (color a	and ON/flickerir	ng/OFF) can be	controlled, an	d screen saving	time can be se	et. Color and s	status of backlig	ht can be cont	rolled from PLC	).
	Maximum nu touch keys			50/scr	een (matrix res	istive film type,	, 18 x 6)			50	/screen (analog	resistive film t	ype)	
Touch panel	Minimum unit			16 x 16 dots (per key)							2 x 2 dot	s (per key)		-
	Simultaneous pressing (2 touch keys)			Permitted Not permitted '1  1,000,000 times or more (pressing force: 0.98 N or less)										
Ruzzer outou	Life it (buzzer soun	haussi h												
	key is pressed						Single tor	ne (Long sound,	short sound or	r no sound.)				
Memory	User memory	,		Built-in flash ROM [To store project data (1.5 MB or less) and OS]						ore project dat	Built-in fl a (512 kB or les	lash ROM s), OS, alarm h	istory and recip	oe data]
	Life (number writing)	of times of		100,000 times										
Battery				alarm history	and recipe data	1-50BAT to stor a, replacement g temperature o	cycle: 5 years				-	_		
	For communi	cation with	Serial RS-422/ RS-485	Serial RS-232	Serial RS-422	Serial RS-422/ RS-485	Serial RS-232	Serial RS-422	Serial RS-422/ RS-485	Serial RS-232	Serial RS-422	Serial RS-422/ RS-485	Serial RS-232	Serial RS-422
Built-in	1 20			1ch	, transmission s	speed: 115,200	/57,600/38,400	0/19,200/9,600/	4,800 bps, con	nector shape:	9-pin type conn	ector terminal	board	1
interface	RS-485 Supp hardware ver				B or	later				· · · ·	E or	later		
	For communi personal com			RS-	232 1ch, transn	mission speed:	115,200/57,60	0/38,400/19,20	0/9,600/4,800 b	ops, connector	shape: 6-pin ty	pe mini DIN (fe	emale)	
Applicable so	oftware packag					GT De	signer2 Version	n 2.101F or late	r, GT Works3	Version 1.10L	or later			
Supply voltage (24 V type has built-in fuse, and cannot be replaced.)		[Ripple	10%, -15%) voltage : / or less1	5 VDC (±5%) Supplied from PLC	[Ripple	10%, -15%) voltage : / or lessl	5 VDC (±5%) Supplied from PLC	[Ripple	10%, -15%) voltage : or less1	5 VDC (±5%) Supplied from PLC	[Ripple	10%, -15%) voltage : / or less1	5 VDC (±5%) Supplied from PLC	
Power consul			2.2W (90mA / [1.7W	or less 24 VDC), or less 24 VDC)]	1.1W or less (220mA / 5 VDC), [0.6W or less (120mA / 5 VDC)]	2.2W (90mA/ [1.7W	or less 24 VDC), or less 24 VDC)]	1.1W or less (220mA / 5 VDC), [0.6W or less (120mA / 5 VDC)]	1.9W ( (80mA / [1.2W	or less 24 VDC),	1.1W or less (220mA / 5 VDC), [0.6W or less (120mA / 5 VDC)]	1.9W (80mA / [1.2W	or less 24 VDC), or less 24 VDC)]	1.1W or less (220mA/ 5 VDC), [0.6W or less (120mA/ 5 VDC)]
Inrush curre	nt			(26.4 VDC) ms	_		s (26.4 VDC) ms	_	13A or less 1r	(26.4 VDC) ns	_		(26.4 VDC) ms	_
Permissible time	instantaneous	s failure	Up to	5ms	_	Up to	5ms	_	Up to	5ms	_	Up to	5ms	_

<sup>\*1</sup> If there is a key around the center of the pressed area when two or more keys are pressed, the key in the center may be activated.

#### **Serial Multi-drop Connection Unit specifications**

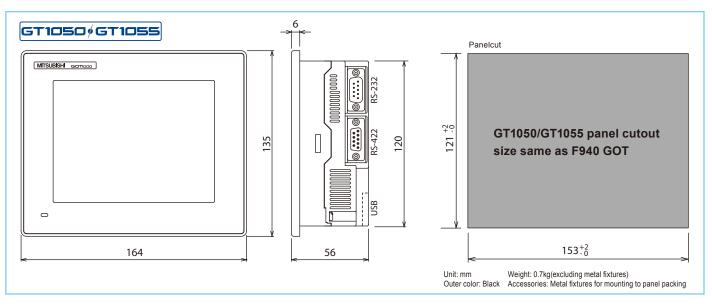
#### **External Dimensions**

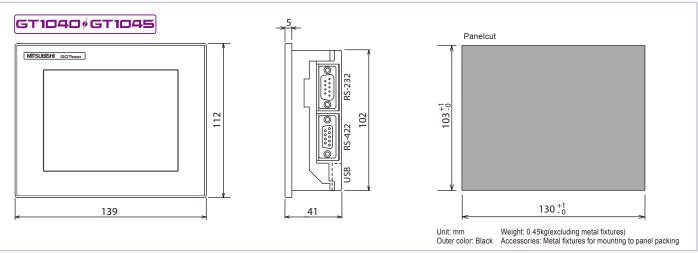


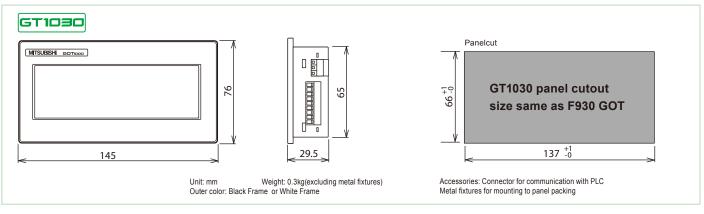
#### **Performance specifications**

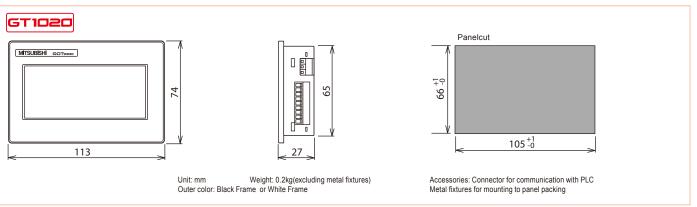
	Item	Specification					
PLC	Communication type	RS-422, RS-232 standard conformance 1ch (Simultaneous use					
Connection		impossible)					
interface	Transmission speed	115.200 / 57.600 / 38.400 / 19.200 / 9.600 / 4.800 bps					
	Compatible PLCs	MELSEC Series					
	Connector shape	RS-422 D-sub 9 pin (female), RS-232 D-sub 9 pin (male)					
GOT	Communication type	Serial RS-485 standard conformance 1ch, internal terminal resistance					
Connection	Transmission channel	Bidirectional half-duplex (1 pair wiring),					
interface	type	Bidirectional full-duplex (2 pair wirings)					
	Transmission speed	115.200 / 57.600 / 38.400 / 19.200 / 9.600 / 4.800 bps					
	Communication length	500m (maximum for entire system)					
	Connection number	Maximum 16 units					
	Compatible GOTs	GOT1000 series are connectable.					
	Connector shape	Terminal Block					
PC connection	on interface	USB 2.0, Mini-B connector					
Power supply	y / Supply voltage	24 VDC (+10%, -15%)					
Fuse (not rep	placeable)	1A					
Power consu	imption	3.36W or less (140mA /24 VDC)					
Inrush curre	nt	14A or less (24.6 VDC, 1mA)					
General spe	cifications	Follows the GOT1000 series					
Mounting me	ethod	DIN rail or screw mounting					

#### **Dimensions**









### Main unit & Option parts

Division	Model name			Specifica	tion		С	E	UL/cUL		
DIVISION	Туре	Frame color	Dis	splay	Power supply	PLC connection/PC	EMC	LVD	UL/CUL		
GT1050/GT1055	GT1055-QSBD		5.7-inch (	(256 colors)		RS-422/RS-485, RS-232, USB	0		+		
nain unit	GT1050-QBBD	Black	5.7-inch (16 scales)		24 VDC	RS-422/RS-485, RS-232, USB	0	_	ф.		
GT1040/GT1045	GT1045-QSBD	Diack	4.7-inch (	(256 colors)	24 VDC	RS-422/RS-485, RS-232, USB	0	_	<b>+</b>		
nain unit	GT1040-QBBD		4.7-inch (16 scales) RS-422/RS-485, RS-232, USB					_	#		
Memory board	GT10-50FMB			For GT1050/GT1055,	GT1040/GT1045		+	_	_		
	GT01-C10R4-8P		_	_	_						
	GT01-C30R4-8P		FXCPU (MINI-DIN 8 pin) direct connection RS-422 cable [3m]								
	GT01-C100R4-8P			NI-DIN 8 pin) direct co			_	_			
	GT01-C200R4-8P		FXCPU (MINI-DIN 8 pin) direct connection RS-422 cable [20m]								
	GT01-C300R4-8P		FXCPU (MINI-DIN 8 pin) direct connection RS-422 cable [30m]								
Connection cable	GT01-C30R4-25P			D-SUB25 pin) direct o			_	_			
	GT01-C100R4-25P			D-SUB25 pin) direct co			_	_	_		
	GT01-C200R4-25P			D-SUB25 pin) direct co				_			
	GT01-C300R4-25P		QnA/ACPU (D-SUB25 pin) direct connection RS-422 cable [30m]								
	GT01-C30R2-6P		QCPU (MIN	NI-DIN 6 pin) direct co	nnection RS-232 c	able [3m]	_	_			
	GT01-C30R2-9S		FXCPUcommunica	ation boards(D-SUB 9	pin) connection RS	S-232 cable [3m]	_				
Data Transfer cable	GT01-C30R2-9S	PC (I	O-SUB 9 pin: female	e)<=>GOT (D-SUB 9 p	in: female) connec	tion RS-232 cable [3m]	_	_			
Sata Hallster Cable	GT09-C30USB-5P		PC (USB-Atype)	<=>GOT (USB-MINI-B	type) connection L	JSB cable [3m]	_	-	_		
	GT1030-LBD			3-colors	24 VDC	RS-422/RS-485, RS-232	0		#		
	GT1030-LBD2		4.5-inch		24 VDC	RS-232, RS-232	#	_	#		
	GT1030-LBL	Black		(green/orange/red)	5 VDC	RS-422, RS-232	+	_	#		
	GT1030-LBDW	Віаск	Monochrome	0!	0411/00	RS-422/RS-485, RS-232	+	_	#		
	GT1030-LBDW2		(black/white)	3-colors	24 VDC	RS-232, RS-232	0	_	ф.		
ST1030	GT1030-LBLW			(white/pink/red)	5 VDC	RS-422, RS-232	+	_	#		
nain unit	GT1030-LWD					RS-422/RS-485, RS-232	+	_	#		
	GT1030-LWD2			3-colors	24 VDC	RS-232, RS-232	+	_	#		
	GT1030-LWL		4.5-inch Monochrome	(green/orange/red)	5 VDC	RS-422, RS-232	+	_	#		
	GT1030-LWDW	White				RS-422/RS-485, RS-232	0	_	+		
	GT1030-LWDW2		(black/white)	3-colors	24 VDC	RS-232, RS-232	+	_	#		
	GT1030-LWLW			(white/pink/red)	5 VDC	RS-422, RS-232	+	_	+		
	GT1020-LBD					RS-422/RS-485, RS-232	+		+		
	GT1020-LBD2			3-colors	24 VDC	RS-232, RS-232	+	_			
	GT1020-LBL		3.7-inch	(green/orange/red)	5 VDC	RS-422, RS-232	+				
	GT1020-LBDW	Black	Monochrome			RS-422/RS-485, RS-232	+				
	GT1020-LBDW2	_	(black/white)	3-colors	24 VDC	RS-232, RS-232	+				
GT1020	GT1020-LBLW	_		(white/pink/red)	5 VDC	RS-422, RS-232			ф.		
main unit	GT1020-LWD			+	0.100	RS-422/RS-485, RS-232					
	GT1020-LWD2			3-colors	24 VDC	RS-232, RS-232					
	GT1020-LWL	-	3.7-inch Monochrome (black/white)	(green/orange/red)	5 VDC	RS-422, RS-232					
	GT1020-LWDW	White			0.150	RS-422/RS-485, RS-232					
	GT1020-LWDW2	_		3-colors	24 VDC	RS-232, RS-232	+		#		
	GT1020-LWLW	$\dashv$		(white/pink/red)	5 VDC	RS-422, RS-232	+		#		
Memory loader	GT10-LDR		For (	GT1030,GT1020 (Pow			<u> </u>				
	GT10-LDR GT10-C10R4-8P			INI-DIN 8 pin) direct co		· · ·	Η_	<del>-  </del>			
	GT10-C10R4-8P		· · · · · · · · · · · · · · · · · · ·				-	$\vdash = \vdash$			
	GT10-C30R4-8P	FXCPU (MINI-DIN 8 pin) direct connection RS-422 cable [3m]  FXCPU (MINI-DIN 8 pin) direct connection RS-422 cable [10m]									
	GT10-C100R4-8P		_								
	GT10-C200R4-8P			NI-DIN 8 pin) direct co				$\vdash$			
				NI-DIN 8 pin) direct co			-				
	GT10-C10R4-8PC		· · · · · · · · · · · · · · · · · · ·	8 pin) direct connection			<u> </u>				
2	GT10-C30R4-8PC			8 pin) direct connection		·	<u> </u>	_			
Connection cable	GT10-C100R4-8PC	_		3 pin) direct connection			-	-			
	GT10-C200R4-8PC			pin) direct connection		. ·	_	-			
	GT10-C300R4-8PC			pin) direct connection				_			
	GT10-C30R4-25P			D-SUB 25 pin) direct of			_		_		
	GT10-C100R4-25P		· · · · · · · · · · · · · · · · · · ·	SUB 25 pin) direct co				_	_		
	GT10-C200R4-25P		QnA/ACPU (D-SUB 25 pin) direct connection RS-422 cable [20m]								
	GT10-C300R4-25P			D-SUB 25 pin) direct c			_	_	_		
	GT10-C30R2-6P			NI-DIN 6 pin) direct co			_				
Serial Multi-drop connection	GT01-RS4-M			or PLC : RS-422 or RS							
ınit	O 1 0 1-1\O+-IVI		For GOT	1000 : RS-485 (Maximi	um 16units & 500m	length)	Ψ		Ψ		
Connection adapter	GT10-9PT5S		For G1	Γ105□, GT104□. RS-	485 Easy wiring ada	apter					
	GT01-C30R2-6P	PC (I	D-SUB 9 pin: female	)<=>GOT (MINI-DIN 6	oin: female) connec	ction RS-232 cable [3m]	_	_			
Data Transfer cable	RS-232/USB adapter		For GT1030	0,GT1020 (software:G	T Designer2,GX D	eveloper)					
	GT10-RS2TUSB-5S	Sold sep				ric System Sarvis CO.LTD)	_	-	_		
JSB port extension	GT10-C10USB-5S			4□. Waterproof USB			_		_		
						connection RS-232 cable [0.3m]	_	_			

#### Options

Division	Model name		Specifications								
	GT10-50PS□□	For GT1050 / GT1055.									
Protective sheet	GT10-40PS□□	For GT1040 / GT1045.	7	□□ : GB(Antiglare), CB(Clear),							
	GT10-30PS□□	For GT1030.	5 sheets	GW(Antiglare [frame: white]), CW(Clear [frame: white])							
	GT10-20PS□□	For GT1020.	]								
	GT05-50PCO			For GT1050 /GT1055							
Oil resistant cover*	GT10-30PCO			For GT1030.							
	GT10-20PCO		For GT1020.								
Manuals GT10-U-E GT10 User's Manual											
Battery	GT11-50BAT		Battery for backu	p of clock data,(Apare parts for GT1050,GT1055,GT1030)							

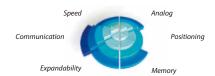
<sup>\*:</sup>Check it the oil resistant cover can be used in the actual environment before use with the manual.

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The ground breaking FX3 series is the 3rd generation of compact controller produced by Mitsubishi Electric. Coming from a heritage of pioneering compact controllers, the FX3 series continues to build on its cornerstone concepts: ease of use, flexibility, affordability, and customer confidence.







Controllable I/O: 14 - 256 points (With CC-Link remote I/O's) (Main Unit I/O: 14/24/40/60 points)





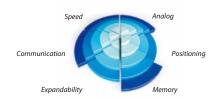


Controllable I/O: 16 - 384 points (With CC-Link remote I/O's) (Main Unit I/O: 16/32/48/64/80/128 points)





Indonesia



Controllable I/O: 16 - 384 points (with CC-Link remote I/O's) (Main Unit I/O: 16/32/64/96 points)

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