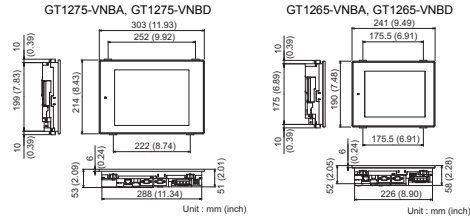


4.3 External Dimensions



5. EMC AND LOW VOLTAGE DIRECTIVE

For the products sold in European countries, the conformance to the EMC Directive, which is one of the European Directives, has been a legal obligation since 1996. Also, conformance to the Low Voltage Directive, another European Directives, has been a legal obligation since 1997.

Manufacturers who recognize their products must conform to the EMC and Low Voltage Directive are required to declare that their products conform to these Directives and put a "CE mark" on their products.

- Authorized representative in Europe
- Authorized representative in Europe is shown below.
- Name : Mitsubishi Electric Europe BV
- Address : Gothaer strasse 8, 40880 Ratingen, Germany

5.1 Requirements to Meet EMC Directive

EMC Directives are those which require "any strong electromagnetic force is not output to the external. Emission (electromagnetic interference)" and "it is not influenced by the electromagnetic wave from the external. Immunity (electromagnetic sensitivity)".

Items 5.1.1 through 5.4.3 summarize the precautions to use GOT and configure the mechanical unit in order to match the EMC directives. Though the data described herein are produced with our best on the basis of the requirement items and standards of the restrictions gathered by Mitsubishi, they do not completely guarantee that all mechanical unit manufactured according to the data do not always match the above directives. The manufacturer itself which manufactures the mechanical unit must finally judge the method and others to match the EMC directives.

5.1.1 EMC directive

The standards of the EMC Directive are shown below.

Applied standard	Test standard	Test details	Standard value
EN 61131-2 : 2007	EN55011 Radiated noise ¹	Electromagnetic emissions from the product are measured.	30M-230MHz QP: 30dB _μ V/m (30m in measurement range) ^{2,3} 230M-1000MHz QP: 37dB _μ V/m(30m in measurement range) ^{2,3}
	EN55011 Conducted noise ¹	Electromagnetic emissions from the product to the power line is measured.	150k-500kHz QP:79dB, Mean: 66dB ² 500k-30MHz QP:73dB, Mean: 60dB ²
	EN61000-4-2 Electrostatic immunity ¹	Immunity test in which static electricity is applied to the cabinet of the equipment.	± 4kV Contact discharge ± 8kV Aerial discharge
	EN61000-4-3 Radiated electromagnetic field AM modulation	Immunity test in which field is irradiated to the product.	80-1000MHz:10V/m 1.4-2GHz:3V/m 2.0-2.7GHz:1V/m 80%AM modulation@1kHz
	EN61000-4-4 Fast transient burst noise ¹	Immunity test in which burst noise is applied to the power line and signal lines.	Power line:2kV Digital I/O(24V or higher): 1kV (Digital I/O(24V or less))> 250V (Analog I/O, signal lines)> 250V
EN61000-4-5 Surge immunity ¹	Immunity test in which lightning surge is applied to the product.	AC power type Power line (between line and ground): ± 2kV Power line (between lines): ± 1kV Data communication port: ± 1kV DC power type Power line (between line and ground): ± 0.5kV Power line (between lines): ± 0.5kV Data communication port: ± 1kV	

(Continue to next page)

Applied standard	Test standard	Test details	Standard value
EN 61131-2 : 2007	EN61000-4-6 Conducted RF immunity ¹	Immunity test in which a noise induced on the power and signal lines is applied.	Power line: 10V Data communication port: 10V
	EN61000-4-8 Power supply frequency magnetic field immunity	Test for checking normal operations under the circumstance exposed to the ferromagnetic field noise of the power supply frequency (50/60Hz).	30 A/m
	EN61000-4-11 Instantaneous power failure and voltage dips immunity	Test for checking normal operations at instantaneous power failure.	AC power type 0.5 cycle 0% (interval 1 to 10s) 250/300 cycle 0% 10/12 cycle 40% 25/30 cycle 70% DC power type 10ms (interval 1 to 10s)

¹: The GOT is an open type device (device installed to another device) and must be installed in a conductive control panel.
The above test items are conducted in the condition where the GOT is installed on the conductive control panel and combined with the Mitsubishi PLC.

²: QP (Quasi-Peak): Quasi-peak value, Mean: Average value
³: The above test items are conducted in the following conditions.
30M-230MHz QP : 40dB_μV/m (10m in measurement range)
230M-1000MHz QP : 47dB_μV/m (10m in measurement range)

5.1.2 Control panel

The GOT is an open type device (device installed to another device) and must be installed in a conductive control panel.
It not only assure the safety but also has a large effect to shut down the noise generated from GOT, on the control panel.

(1) Control Panel

- The control panel must be conductive.
- When fixing a top or bottom plate of the control panel with bolts, do not coat the plate and bolt surfaces so that they will come into contact.
And connect the door and box using a thick grounding cable in order to ensure the low impedance under high frequency.
- When using an inner plate to ensure electric conductivity with the control panel, do not coat the fixing bolt area of the inner plate and control panel to ensure conductivity in the largest area as possible.
- Ground the control panel using a thick grounding cable in order to ensure the low impedance under high frequency.
- The diameter of cable holes in the control panel must be 10cm (3.94in.). In order to reduce the chance of radio waves leaking out, ensure that the space between the control panel and its door is small as possible.
Paste the EMI gasket directly on the painted surface to seal the space so that the leak of electric wave can be suppressed.
Our test has been carried out on a panel having the damping characteristics of 37dB max. and 30dB mean (measured by 3m method with 30 to 300MHz).

(2) Connection of power and ground wires

- Ground and power supply wires for the GOT must be connected as described below.
- Provide a grounding point near the GOT. Short-circuit the LG and FG terminals of the GOT (LG: line ground, FG: frame ground) and ground them with the thickest and shortest wire possible (The wire length must be 30cm (11.81in.) or shorter.)
The LG and FG terminals function is to pass the noise generated in the PC system to the ground, so an impedance that is as low as possible must be ensured. As the wires are used to relieve the noise, the wire itself carries a large noise content and thus short wiring means that the wire is prevented from acting as an antenna.
Note) A long conductor will become a more efficient antenna at high frequency.
 - The earth wire led from the earthing point must be twisted with the power supply wires.
By twisting with the earthing wire, noise flowing from the power supply wires can be relieved to the earthing. However, if a filter is installed on the power supply wires, the wires and the earthing wire may not need to be twisted.

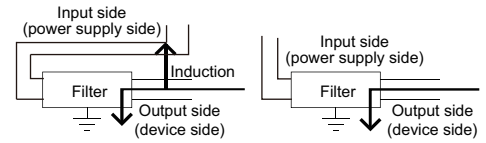
5.1.3 Noise filter (power supply line filter)

The noise filter (power supply line filter) is a device effective to reduce conducted noise. Except some models, installation of a noise filter onto the power supply lines is not necessary. However conducted noise can be reduced if it is installed. (The noise filter is generally effective for reducing conducted noise in the band of 10MHz or less.) Usage of the following filters is recommended.

Model name	FN343-301	FN660-6/06	ZHC2203-11
Manufacturer	SCHAFFNER	SCHAFFNER	TDK
Rated current	3A	6A	3A
Rated voltage	250V		

The precautions required when installing a noise filter are described below.

- Do not install the input and output cables of the noise filter together to prevent the output side noise will be induced into the input side cable where noise has been eliminated by the noise filter.



- Connect the noise filter's ground terminal to the control panel with the shortest cable as possible (approx. 10cm (3.94 in.) or less).

5.2 Requirements for Compliance with the Low Voltage Directive

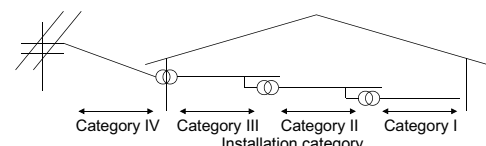
The Low Voltage Directive requires each device which operates with power supply ranging from 50VAC to 1000V and 75VDC to 1500V to satisfy necessary safety items.
In the Sections from 5.2.1 to 5.2.5, cautions on installation and wiring of the GOT to conform to the Low Voltage Directive requires are described. We have put the maximum effort to develop this material based on the requirements and standards of the Directive that we have collected. However, compatibility of the devices which are fabricated according to the contents of this manual to the above Directive is not guaranteed. Each manufacturer who fabricates such device should make the final judgement about the application method of the Low Voltage Directive and the product compatibility.

5.2.1 Standard subject to GOT

Standard applied to GOT : EN61131-2 Programmable controllers - Equipment requirements and tests
EN60950-1 Safety of Information Technology Equipment

5.2.2 Power supply

The insulation specification of the GOT was designed assuming installation category II. Be sure to use the installation category II power supply to the GOT.
The installation category indicates the durability level against surge voltage generated by lightning strike.
Category I has the lowest durability; category IV has the highest durability.



Category II indicates a power supply whose voltage has been reduced by two or more levels of isolating transformers from the public power distribution.

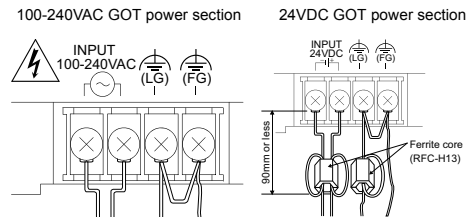
5.4 EMC Directive-Compliant System Configuration

Wire and connect GOT1000 series equipments as instructed below. For the GOT with the 24VDC power supply, attach a ferrite core (RFC-H13 manufactured by KITAGAWA INDUSTRIES CO.,LTD.) within the range shown below.

If the GOT1000 series equipments are configured in a way different from the following instructions, the system may not comply with EMC directives.

5.4.1 Power and ground wires wiring method

- Power and ground wires wiring method
Connect the power wire and connection cable as shown in the illustration.
Lead the power wire and ground wire as shown in Section 5.1.2
- Be sure to ground the LG cable, FG cable, and protective ground cable.

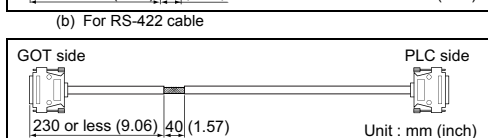
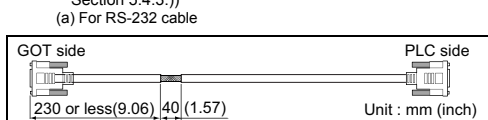


5.4.2 Processing connection cables

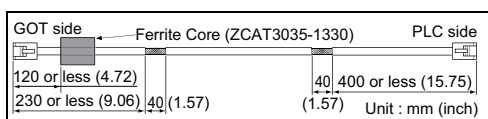
Process the cable used with the GOT with the following method. When processing the cable, ferrite core and cable clamp are required. The cable clamp used by Mitsubishi Electric for the EMC specification compatibility test is shown below.

- TDK corporation brand ZCAT3035-1330 Ferrite Core
- Mitsubishi Electric Model AD75CK cable clamp
- Japan Zipper Tubing Co., Ltd. Zipper tube SHNJ type

- CPU direct connection and computer link connection
 - Strip the outer insulation layer of the prepared cable by the length shown below to expose the braided shield for grounding. (For grounding with cable clamps. (Refer to Section 5.4.3.))



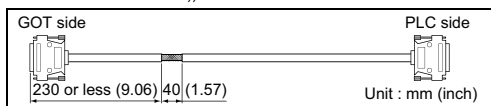
- Ethernet connection
Strip the outer insulation layer at both ends of the cable by the length shown below to expose the braided shield for grounding. (For grounding with cable clamps. (refer to Section 5.4.3.))
Attach the ferrite core to the cable in the position as illustrated below.



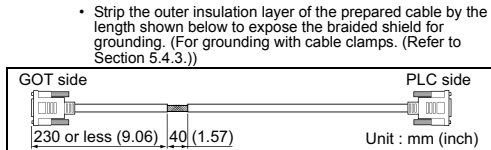
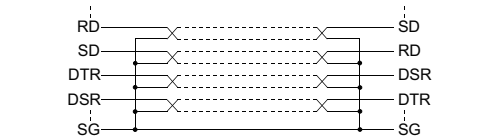
- When connecting to PLC (manufactured by other company), microcomputer, temperature controller, inverter, servo amplifier, CNC, MODBUS(R)/RTU or MODBUS(R)/TCP connection.
Produce the cable (RS-232 cable, RS-422 cable) for connecting the GOT to a controller with reference to the GOT1000 Series Connection Manual.

Point
Configure the system to meet the EMC Directive specifications for the connected device when connecting the GOT to a controller.
The following gives the instructions to ensure the machinery comply with the EMC Directive. However, the manufacturer of the machinery must finally determine how to make it comply with the EMC Directives: if it is actually compliant with the EMC Directives.

- For RS-422/485 cable
 - Each signal wire (excluding SG and FG) should be made into a two power wires and connected, then twisted.
 - Make the SG wire more than two wires and connect.
 - Strip the outer insulation layer of the prepared cable by the length shown below to expose the braided shield for grounding. (For grounding with cable clamps. (Refer to Section 5.4.3.))



- For RS-232 cable
Use a twisted pair style for each signal wire (except SG, FG) with SG.



5.4.3 Grounding the cable

Ground the cable and grounding wire to the control panel where the GOT and base unit are installed.

- Ground the braided shield portion of the cable to the control panel with the cable clamp (AD75CK).
Braided shield
- Do not arrange the cable clamp adjacent to other cables which do not clamp.
Noise from the control panel may access the GOT from the cable clamp and cause adverse effects.

6. INSTALLATION

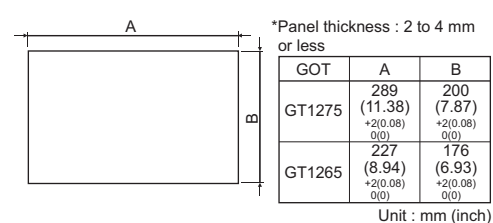
6.1 Control Panel Inside Dimensions for Mounting GOT

Install the GOT on the control panel out of the way for the equipment inside the control panel. Do not install the GOT and the unit in prohibited areas for the installation.

When mounting the GOT to the control panel, place the mounting fixtures (included with GOT) on the mounting fixture attaching part of the GOT, and fix them by tightening in the torque range of 0.36 to 0.48N·m.

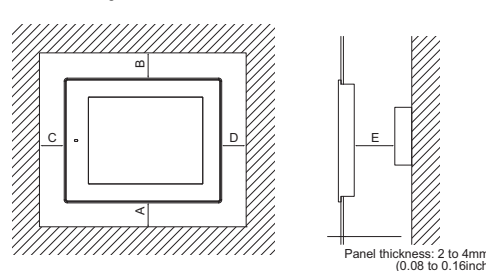
Point	Applicable cable	
Some cables may need to be longer than the specified dimensions when connecting to the GOT. Therefore, consider the connector dimensions and bending radius of the cable as well for installation.		

6.2 Panel Cutting Dimensions



6.3 Mounting Position

When mounting the GOT, the following clearances must be maintained from other structures and devices.
Some cables may need to be longer than the specified dimensions when connecting to the GOT.
Therefore, consider the connector dimensions and bending radius of the cable as well for installation.
For the lead-in allowance for cables at the bottom of the GOT, refer to the following.



Installation Environment	A, D	B	C	
			When the CF card is not used	When the CF card is used
In the presence of radiated-noise or heat-generating equipment nearby	50(1.97) or more	80(3.15) or more	50(1.97) or more	100(3.94) or more
In the absence of radiated-noise or heat-generating equipment nearby	20(0.79) or more	20(0.79) or more	20(0.79) or more	20(0.79) or more

Unit : mm(inch)

MITSUBISHI

GT12

User's Manual (2/2)

GT1275-VNBA, GT1275-VNBD
GT1265-VNBA, GT1265-VNBD

Thank you for purchasing the GOT1000 Series.

Prior to use, please read both this manual and the detailed manual thoroughly to fully understand the product.

MODEL	GT12-U(SHO)-E
Model code	1D7ME1
SH(NA)-080977ENG-C(1105)MEE	

GRAPHIC OPERATION TERMINAL
GOT1000

7. SPECIFICATION FUNCTION COMPARISON FOR GT12 AND GT11

The table overview shows the different specifications and functions available on the GT12 and the GT11.
For details of each function, refer to the relevant manual.
(1) Hardware comparison
The following shows the differences in hardware on the GT12 and the GT11.

○ : Supported × : Not supported - : Not necessary

Item	GT12				GT11		Relevant manual	
	GT1275-VNBA	GT1275-VNBD	GT1265-VNBA	GT1265-VNBD	GT1155-QSBD	GT1155-QLBD		
Display section	Type	TFT color liquid crystal display				STN color liquid crystal display	STN monochrome liquid crystal display (white/black)	GT11 User's Manual (Hardware)
	Screen size	10.4"		8.4"		5.7"		
	Resolution	640 × 480 [dots]				320 × 240 [dots]		
	Display size	211(8.31)(W) × 158(6.22)(H) [mm](inch)		171(6.73)(W) × 128(5.04)(H) [mm](inch)		115(4.53)(W) × 86(3.39)(H) [mm](inch)		
	Character display count	16-dot standard font: 40 characters 30 lines (2byte character) 12-dot standard font: 53 characters 40 lines (2byte character)				16-dot standard font: 20 characters 15 lines (2byte character) 12-dot standard font: 26 characters 20 lines (2byte character)		
	Color display	256 colors				256 colors	Monochrome (white/black) 16 Scales	
	Display angle	Left/Right: 45 degrees Top/Bottom: 20 degrees				Left/Right: 50 degrees Top: 50 degrees Bottom: 60 degrees	Left/Right: 45 degrees Top: 20 degrees Bottom: 40 degrees	
	Contrast adjustment	-				16-level adjustment		
	Intensity of LCD only	200[cd/m ²] (Adjustable in 4 levels)				380[cd/m ²] (Adjustable in 8 levels)	220[cd/m ²] (Adjustable in 8 levels)	
	Life	Approx. 52,000 h (Operating ambient temperature: 25℃)				Approx. 50,000 h (Operating ambient temperature: 25℃)		
Backlight	Life	Approx. 50,000 h or longer (Time when display luminance reaches 50% at the operating ambient temperature of 25℃)		Approx. 40,000 h or longer (Time when display luminance reaches 50% at the operating ambient temperature of 25℃)		Approx. 75,000 h or longer	Approx. 54,000 h or longer	GT11 User's Manual (Hardware)
	Type	Analog resistive film				Matrix resistive film		
Touch panel	Number of touch keys	-				300 keys/screen (Matrix structure of 15 lines × 20 columns)		GT16 User's Manual (Hardware) GT11 User's Manual
	Key size	Minimum 2 × 2 [dots] (per key)				Maximum 16 × 16 [dots] (per key)		
	Number of objects that can be simultaneously touched	Simultaneous presses not allowed. (Only 1 point can be touched.)				Maximum of 2 points		
Memory	C drive	Built-in flash memory 9MB ¹				Built-in flash memory 3MB		GT11 User's Manual
	USB (device)	○ (Rear side)				× (Front side)		
Built-in interface	Option function board	Option functions supported as standard				Option function board is necessary for option function use		GT16 User's Manual (Hardware)
	Ethernet	○				×		

(Continue to next page)

Item	GT12				GT11		Relevant manual
	GT1275-VNBA	GT1275-VNBD	GT1265-VNBA	GT1265-VNBD	GT1155-QSBD	GT1155-QLBD	
External dimensions	303(11.93)(W) × 214(8.43)(H) × 53(2.09)(D) [mm](inch)		241(9.49)(W) × 190(7.48)(H) × 58(2.29)(D) [mm](inch)		164(6.46)(W) × 135(5.32)(H) × 56(2.21)(D) [mm](inch)		GT11 User's Manual
Panel cutting dimensions	289(11.38)(W) × 200(7.87)(H) [mm](inch)		227(8.94)(W) × 176(6.93)(H) [mm](inch)		153(6.03)(W) × 121(4.77)(H) [mm](inch)		
Weight (mounting fixtures are not included)	2.3kg(5.1lb)		1.7kg(3.7lb)		0.7kg(1.5lb)		
Power supply	100 to 240VAC	24VDC	100 to 240VAC	24VDC	DC24V		

¹:The limit for available storage for project data is 6MB.

(2) Option comparison
The following shows the differences in options on the GT12 and the GT11.

○ : Supported × : Not supported

Item	GT12				GT11		Relevant manual
	GT1275-VNBA	GT1275-VNBD	GT1265-VNBA	GT1265-VNBD	GT1155-QSBD	GT1155-QLBD	
Protective sheet	Clear	○		×		×	GT11 User's Manual
	Antiglare	×		-		GT11-50PSGB	
	Clear (Frame: white)	×		-		GT11-50PSCW	
	Antiglare (Frame: white)	×		-		GT11-50PSGW	
Battery	GT11-50BAT	○ ¹		○(Pre-attached for shipment)			
Attachment	GT15-70 ATT-98	○	×	×		GT16 User's Manual (Hardware)	
	GT15-70 ATT-87	○	×	×			
	GT15-60 ATT-97	×	○	×			
	GT15-60 ATT-96	×	○	×			
	GT15-60 ATT-87	×	○	×			
	GT15-60 ATT-77	×	○	×			
Stand	GT15-70STAND				GT05-50STAND		GT16 User's Manual (Hardware)
Backlight	GT12-70VLTN		GT12-60VLTN		Replacement unavailable		GT11 User's Manual

¹ : The GOT automatically formats the D drive (SRAM) when the battery is not attached.
Attach the battery to keep clock and alarm history data.

(3) Function comparison
The following shows the differences in functions on the GT12 and the GT11.
For details of the utility screen, refer to the GT16 User's Manual.

○ : Supported × : Not supported - : Not necessary

Item	GT12				GT11		Relevant manual
	GT1275-VNBA	GT1275-VNBD	GT1265-VNBA	GT1265-VNBD	GT1155-QSBD	GT1155-QLBD	
Shape	Rounded, rectangle				○		Screen Design Manual (Fundamentals)
GOT internal device	GB				65536 points		
	GD				65536 points		
Vertical format	×				○		
Screen changing	Memory card storage for screen transition history				○		
ASCII input/display	Text alignment				○		
Historical data list display	Maximum number of objects per screen				1		×
Date display/time display	View format				Date: 20 types Time: 6 types		Date: 20 types Time: 6 types
User alarm	Alarm (device) points				Maximum 8192		Maximum 8192
Alarm history	Alarm (device) points				3072		3072
	Alarm history recorded				D drive: 2048 records A drive: 3072 records		D drive: 2048 records A drive: 3072 records
	File storage location				D drive, A drive		D drive, A drive
Alarm display function	Popup display				Scrolling display		Screen Design Manual (Functions)
Advanced alarm observation	○				×		
	Advanced user alarm function				D drive, A drive (Number of alarms : 8)		
Advanced system alarm function				D drive, A drive		×	
Line graph	Scale points				101		101
Trend graph	Scale points				101		101
Bar graph	Scale points				101		101
Statistics bar graph	Scale points				101		101
Statistics pie graph	Scale points				101		101
Scatter graph	Scale points				101		101
Circle graph	Scale points				101		101

(Continue to next page)

Item	GT12	GT11	Relevant manual
	GT1275-VNBA, GT1275-VNBD, GT1265-VNBA, GT1265-VNBD	GT1155-QSBD, GT1155-QLBD	
Historical trend graph	○	×	Screen Design Manual (Fundamentals)
Points	300 points	-	
Number of pens	8 lines	-	
Number of objects on a screen	1	-	
Logging function	○	×	
Cycle (logging trigger)	500ms (minimum value)	-	
Number of settings	4	-	
Recipe function	○ ¹	○ ¹	
Recipe count	8192 points is total for all recipe settings	8192 points per 1 recipe setting	
Recipe file storage location	D drive, A drive	D drive, A drive	
Bar code function	○	○	GT16 User's Manual
RFID function	○	○	
Hard copy function ²	○	×	
Hard copy file storage location	A drive	-	
Maximum number of files	100	-	
FA transparent function	○	×	
GOT maintenance function	GOT start time ○	×	
Multi-channel function	○ (Maximum 2 ch.)	×	
FTP server function	○	×	
System monitoring function	○	×	
A list editor function	○ ¹	○ ¹	GOT1000 Series User's Manual (Extended Functions, Option Functions)
FX list editor function	○ ¹	○ ¹	
Back-up/restore function	○	×	GOT1000 Series User's Manual (Extended Functions, Option Functions)
GOT data package acquisition	○	×	
Software package support	GT Designer3 English version: Version 1.01B or later	GT Designer3 Japanese version: Version 1.00A or later English version: Version 1.01B or later GT Designer2 Japanese version: Version 2.25B or later English version: Version 2.27D or later	-

¹: An option function board is required for the GT11.
No option function board is required for the GT12.

²: When the file number is between 90 and 100, the system signal 2-1.b12 (hard copy auxiliary signal) turns on.
The signal notifies that the number of files in a CF card has reached almost the maximum (100).

(4) GT Designer3 comparison

The following shows the differences in settings for GT Designer3 on the GT12 and the GT11.

When designing GT12 screens, BMP and JPEG format files can be used for parts display and parts movement images.

Item		GT12	GT11	Relevant manual
Model setting	Model	GT12**-V(640×480)	GT11**-Q(320×240)	Screen Design Manual (Fundamentals)
	Setting / installation direction	Horizontal and vertical option not available	Horizontal and vertical option available	
	Color setting	256 colors	Monochrome 16 adjustment level, 256 colors	
Connection device setting	CH1	I/F Standard I/F(RS422/485) Standard I/F(RS232) Standard I/F(Ethernet)	Standard I/F(RS422/232) Standard I/F(RS232)	Screen Design Manual (Fundamentals)
	CH2	I/F Standard I/F(RS422/485) Standard I/F(RS232) Standard I/F(Ethernet)	I/F none	


(5) GT Simulator3 comparison

The following shows the differences in functions for [GOT1000 series GT12 simulator] and [GOT1000 series GT11 simulator] on GT Simulator3. To use the GT12 simulation functions on GT Simulator3, select [GOT1000 series GT12 simulator] in the main menu dialog box on GT Simulator3. If no differences exist in the simulation function for [GOT1000 series GT12 simulator] and [GOT1000 series GT11 simulator] on GT Simulator3, the specifications are the same as that for the hardware.

For details of the hardware specifications, refer to the following.

-  (1) Hardware comparison
-  (3) Function comparison

For details of the functions and the utility to operate the GT12, refer to the following.

 GT Simulator3 Version1 Operating Manual for GT Works3 (3.2 Functions that cannot be simulated)

○ : Supported × : Not supported

Item		GOT1000 series (GT12) simulator	GOT1000 series (GT11) simulator	Relevant manual
Option	Action setup	GT12**-V	GT11**-Q	GT Simulator3 Version1 Operating Manual for GT Works3
	Resolution ¹	640 × 480 [dots]	320 × 240 [dots]	
Color display ¹		256 colors	256 colors	
Memory ¹		9MB	3MB	
Advanced alarm observation		○ ²	×	
Historical trend graph		○ ²	×	
Logging function		○ ²	×	
Hard copy function		○ ²	×	
Software package support ³		GT Designer3 English version: Version 1.14Q or later	GT Designer3 English version: Version 1.01B or later	

¹ : For details of the specifications, refer to (1) Hardware comparison.

² : For details of the functions, refer to (3) Function comparison.

³ : GT Simulator3 is installed or uninstalled automatically when GT Designer3 is installed or uninstalled.

(6) Installation comparison

The installation method of the GT12 is the same as that for the GT1155.


For details of the installation, refer to the following.

 GT11 User's Manual

(7) Wiring comparison

Use the same wiring methods of GT16 to configure the GT12 wirings.


For details of the wiring, refer to the following.

 GT16 User's Manual (Hardware)

(8) Utility function comparison

The operation method of the utility function of the GT12 is the same as that for the GT16.


For details on the operation method of the utility function, refer to the following.

 GT16 User's Manual (Basic Utility)

(9) Message displaying language selectable by utility

For the GT12, the message displaying language selectable by the utility is the same as that for the GT11.

For details of the relationship between the message displaying language selectable by the utility and the standard font, refer to the following.

 GT Designer3 Version1 Screen Design Manual (Fundamentals)

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