



## TECHNICAL BULLETIN

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[Issue No.] GOT-A-0152-A

[Title] Information and precautions on replacing GOT1000 with GOT2000 (GT10 model → GT21 model)

[Date of Issue] July 2020 (Ver. A: December 2020)

[Relevant Models] GT2105, GT2104, GT2103, GT105□, GT104□, GT1030, GT1020

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Thank you for your continued support of Mitsubishi Electric Graphic Operation Terminal (GOT).

We released GOT2000 with high functions and performance as an alternative of GOT1000 series in September 2013 (GOT2000 series).

We highly recommend that you replace the GOT1000 with the GOT2000 for using new sophisticated features.

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**1. Requests for customers**

We released GOT2000 with high functions and performance as an alternative of GOT1000 series in September 2013 (GOT2000 series). We highly recommend that you replace the GOT1000 with the GOT2000 for using new sophisticated features. For the replacement models, refer to "Recommended replacement models" in Chapter 2 below.

**2. Recommended replacement models**

However, depending on usage conditions, another model maybe used. Examine your existing system and select a replacement model. During replacement, refer to the GOT2000 Series User's Manual (Hardware) SH-081194ENG.

GT105□ →GT2105-Q Replacement model list

Used models (GOT1000)	Recommended replacement models (GOT2000)	Panel cutout compatibility	Use attachment	Cable compatibility	Use conversion cable
GT1055-QSBD GT1050-QBBD	GT2105-QTBDS GT2105-QMBDS	○	Not required	○	Not required

GT104□ → GT2104-R Replacement model list

Used models (GOT1000)	Recommended replacement models (GOT2000)	Panel cutout compatibility	Use attachment	Cable compatibility	Use conversion cable
GT1045-QSBD GT1040-QBBD	GT2104-RTBD	× (130 x 103 →118 x 92)	GT21-04RATT-40	×	(1) For RS-422 connection: GT10-C02H-9SC (2) For RS-232 connection: Not available*1

\*1 For connection to each controller, refer to the applicable manual from the following.

- GOT2000 Series Connection Manual (Mitsubishi Electric Products) For GT Works3 Version1 (SH-081197ENG)
- GOT2000 Series Connection Manual (Non-Mitsubishi Electric Products 1) For GT Works3 Version1 (SH-081198ENG)
- GOT2000 Series Connection Manual (Non-Mitsubishi Electric Products 2) For GT Works3 Version1 (SH-081199ENG)
- GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)

GT1030 →GT2104-P Replacement model list

Used models (GOT1000)	Recommended replacement models (GOT2000)	Panel cutout compatibility	Use attachment	Cable compatibility	Use conversion cable
GT1030-HBD GT1030-HWD*1 GT1030-HBDW GT1030-HWDW*1	GT2104-PMBDS	○	Not required	○	Not required
GT1030-HBD2 GT1030-HWD2*1 GT1030-HBDW2 GT1030-HWDW2*1	GT2104-PMBDS2	○	Not required	○	Not required
GT1030-HBL GT1030-HWL*1 GT1030-HBLW GT1030-HWLW*1	GT2104-PMBLS	○	Not required	○	Not required

\*1 The model has a white panel. The recommended replacement model has a black panel.

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## GT1020 → GT2103-P Replacement model list

Used models (GOT1000)	Recommended replacement models (GOT2000)	Panel cutout compatibility	Use attachment	Cable compatibility	Use conversion cable
GT1020-LBD GT1020-LWD*1 GT1020-LBDW GT1020-LWDW*1	GT2103-PMBDS	○	Not required	○	Not required
GT1020-LBD2 GT1020-LWD2*1 GT1020-LBDW2 GT1020-LWDW2*1	GT2103-PMBDS2	○	Not required	○	Not required
GT1020-LBL GT1020-LWL*1 GT1020-LBLW GT1020-LWLW*1	GT2103-PMBLS	○	Not required	○	Not required

\*1 The model has a white panel. The recommended replacement model has a black panel.

**3. Hardware specifications comparison**

**3.1 GT105-Q-BD and GT2105-Q-BDS comparison**

Item	Used models		Recommended replacement models		
	GT1055-QSBD	GT1050-QBBD	GT2105-QTBDS	GT2105-QMBDS	
Conformity standard	CE (EMC), UL/cUL, and KC		←		
Display section	Type	STN color liquid crystal	STN monochrome (white/blue) liquid crystal	TFT color liquid crystal	TFT monochrome (white/Black) liquid crystal
	Screen size	5.7"		←	
	Resolution	320 × 240 dots		←	
	Display size	W115 (4.53) × H86 (3.39) [mm] (inch)		←	
	Display character	16-dot standard font: 20 characters × 15 lines 12-dot standard font: 26 characters × 20 lines		←	
	Display color	256 colors	Monochrome (white/blue) 16 scales	65536 colors	Monochrome (white/Black) 32 scales
	Display angle	Left/Right: 50 degrees, Top: 50 degrees, Bottom: 70 degrees (Horizontal format, hardware version L or later)	Left/Right: 45 degrees, Top: 20 degrees, Bottom: 40 degrees (Horizontal format)	Nondisclosure	
	Contrast adjustment	16-level adjustment		-	
	Intensity of LCD only	380[cd/m <sup>2</sup> ]	260[cd/m <sup>2</sup> ]	Nondisclosure	
	Intensity adjustment	-		32-level adjustment	
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)		-	
	Maximum number of screens that can be registered	1024 screens		2048 screens	
	Backlight	Color	Cold cathode fluorescent lamp (Not replaceable)		LED (Not replaceable)
Function		Backlight OFF Screen save time setting can be set.		←	
Life		Approx. 75000 h (operating ambient temperature: 25 °C, display brightness: 50%)	Approx. 54000 h (operating ambient temperature: 25 °C, display brightness: 50%)	Approx. 65000 h (operating ambient temperature: 25 °C, display brightness: 50%)	

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Item		Used models		Recommended replacement models		
		GT1055-QSBD	GT1050-QBBD	GT2105-QTBDS	GT2105-QMBDS	
Touch panel	Method	Matrix resistive film touch panel		Analog resistive film touch panel		
	Number of touch keys	Maximum 50 keys/screen (Number of touch keys include Window screen.)		Maximum 100 keys/screen (Number of touch keys include Window screen.)		
	Key size	Minimum 16 ×16 dots (per key)		Minimum 2 × 2 dots (per key)		
	Simultaneous press	Max. 2 points		Not allowed		
	Life	1 million times or more (operating force 0.98N max.)		←		
Memory	User memory	Built-in flash memory (3 MB or less)		Built-in flash memory (9 MB or less)		
	Life (Number of write times)	100000 times		←		
Battery	Type	GT11-50BAT type lithium battery		←		
	Life	Approx. 5 years (operating ambient temperature: 25 °C)		←		
Built-in interface	RS-422/485	Specifications	1 channel Connector shape: D-sub 9-pin (Female) Application: PLC communication		←	
		Cables	Example: GT01-C30R4-8P		←	
	RS-232	Specifications	1 channel Connector shape: D-sub 9-pin (Male) Application: Personal computer connection, PLC communication, barcode reader connection, or serial printer connection		1 channel Connector shape: D-sub 9-pin (Male) Application: Personal computer connection*1, PLC communication, barcode reader connection, or serial printer connection	
		Cables	Example: GT01-C30R2-6P		←	
	USB (Device)		1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back) Application: Personal computer connection		←	
	Memory loader		The separately sold GT10-50FMB		The separately sold SD card (SDHC card supported (max. 32 GB))	
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←		
POWER LED		Emission color: 2 colors (green, orange)		Emission color: 2 colors (blue, orange)		
Protective structure		Equivalent to IP67F (front section)		←		
External dimensions		W164 (6.46) × H135 (5.31) × D56 (2.20) [mm] (inch)		←		
Panel cutting dimensions		W153 (6.02) × H121 (4.76) [mm] (inch)		←		
Weight (excluding mounting brackets)		0.7kg		←		

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Item	Used models		Recommended replacement models		
	GT1055-QSBD	GT1050-QBBD	GT2105-QTBDS	GT2105-QMBDS	
Compatible software package	GT Designer3 Version1.00A or later/ GT Designer2 Version2.84N or later		GT Works3 Version1.144A or later		
Orientation	Horizontal or vertical		←		
Product installation spacing	p,38 reference		p,38 reference		
Installation position	p,40 reference		p,40 reference		
Power supply voltage	24 V DC (+10%, -15%)		←		
Power consumption	Backlight ON	9.84W or less	9.36W or less	4.5W or less	2.9W or less
	Backlight OFF	4.32W or less	4.32W or less	2.2W or less	2.2W or less
OS	Installed before shipment		Installed by user		

\*1 This cable is usable for the FA transparent function only. (It cannot be used to write the package data.)

**3.2 GT104□-Q□BD and GT2104-RTBD comparison**

Item	Used models		Recommended replacement models
	GT1045-QSBD	GT1040-QBBD	GT2104-RTBD
Conformity standard		CE (EMC, RoHS), UL/cUL, and KC	
Display section	Type	STN color liquid crystal	STN monochrome (white/blue) liquid crystal
	Screen size	4.7"	
	Resolution	320 × 240 dots	
	Display size	W96 (3.78) × H72 (2.83) [mm] (inch)	
	Display character	16-dot standard font: 20 characters × 15 lines 12-dot standard font: 26 characters × 20 lines	
	Display color	256 colors	Monochrome (white/blue) 16 scales
	Display angle	Left/Right: 50 degrees, Top: 40 degrees, Bottom: 70 degrees (Horizontal format)	Left/Right: 45 degrees, Top: 20 degrees, Bottom: 40 degrees (Horizontal format)
	Contrast adjustment	16-level adjustment	
	Intensity of LCD only	150[cd/m <sup>2</sup> ]	300[cd/m <sup>2</sup> ]
	Intensity adjustment	-	
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)	
	Maximum number of screens that can be registered	1024 screens	
Backlight	Color	LED (Not replaceable)	
	Function	Backlight OFF Screen save time setting can be set.	
	Life	-	
Touch panel	Method	Matrix resistive film touch panel	
	Number of touch keys	Maximum 50 keys/screen (Number of touch keys include Window screen.)	
	Key size	Minimum 16 × 16 dots (per key)	
	Simultaneous press	Max. 2 points	
	Life	1 million times or more (operating force 0.98N max.)	

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Item		Used models		Recommended replacement models
		GT1045-QSBD	GT1040-QBBD	GT2104-RTBD
Memory	User memory	Built-in flash memory (3 MB or less)		Built-in flash memory (9 MB or less)
	Life(Number of write times)	100000 times		←
Battery	Type	GT11-50BAT type lithium battery		←
	Life	Approx. 5 years (operating ambient temperature: 25 °C)		←
Built-in interface	RS-422/485 (side)	Specifications	1 channel Connector shape: D-sub 9-pin (Female) Application: PLC communication	1 channel Connector shape: Connector terminal block 9 pins Application: PLC communication
		Cables	Example: GT01-C30R4-8P	Example: GT10-C02H-9SC + GT01-C30R4-8P GT10-C30R4-8PC
	RS-232	Specifications	1 channel Connector shape: D-sub, 9-pin (Male) (side) Application: Personal computer connection, PLC communication, barcode reader connection, or serial printer connection	1 channel Connector shape: Connector terminal block 9 pins (back) Application: Personal computer connection*1, PLC communication, barcode reader connection, or serial printer connection
		Cables	Example: GT01-C30R2-6P	Example: GT10-C30R2-6P
	Ethernet	Specifications	None	1 channel (10BASE-T/100BASE-TX) Connector shape: RJ-45 (modular jack) Application: Personal computer connection, PLC communication
	USB (Device)	1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back) Application: Personal computer connection		←
	Memory loader	The separately sold GT10-50FMB		The separately sold SD card (SDHC card supported (max. 32 GB))
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←
Protective structure		Equivalent to IP67F (front section)		←
External dimensions		W139 (5.47) × H112 (4.41) × D41 (1.61) [mm] (inch)		W128 (5.04) × H102 (4.02) × D40 (1.57) [mm] (inch)
Panel cutting dimensions		W130 (5.12) × H103 (4.06) [mm] (inch)		W118 (4.65) × H92 (3.62) [mm] (inch)
Weight (excluding mounting brackets)		0.45kg		0.4kg
Compatible software package		GT Designer3 Version1.00A or later/ GT Designer2 Version2.85P or later		GT Works3 Version1.122C or later
Orientation		Horizontal or vertical		←
Product installation spacing		p,38 reference		p,38 reference
Installation Position		p,40 reference		p,40 reference
Power supply voltage		24 V DC (+10%, -15%)		←

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Item		Used models		Recommended replacement models
		GT1045-QSBD	GT1040-QBBD	GT2104-RTBD
Power consumption	Backlight ON	3.6W or less		4.4W or less
	Backlight OFF	2.9W or less		2.9W or less
OS		Installed before shipment		Installed by user

\*1 This cable is usable for the FA transparent function only. (It cannot be used to write the package data.)

**3.3 GT1030-H□D(W) and GT2104-PMBDS comparison**

Item	Used models		Recommended replacement models	
	GT1030-HBD GT1030-HWD	GT1030-HBDW GT1030-HWDW	GT2104-PMBDS	
Conformity standard	CE (EMC, RoHS), UL/cUL, and KC		←	
Display section	Type	STN monochrome (white/Black) liquid crystal		
	Screen size	4.5"		
	Resolution	288 ×96 dots		
	Display size	W109.42 (4.31) × H35.98 (1.42) [mm] (inch)		
	Display character	16-dot standard font: 18 characters ×6 lines 12-dot standard font: 24 characters ×8 lines		
	Display color	Monochrome (white/Black)		
	Display angle	Left/Right: 30 degrees, Top: 20 degrees, Bottom: 30 degrees (Horizontal format)		
	Contrast adjustment	16-level adjustment		
	Intensity of LCD only	200[cd/m <sup>2</sup> ] (Green)	500[cd/m <sup>2</sup> ] (White)	Nondisclosure
	Intensity adjustment	8-level adjustment		
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)		
	Maximum number of screens that can be registered	1024 screens		2048 screens
Backlight	Color	LED with 3 available colors (green, orange, and red) (Not replaceable)	LED with 3 available colors (white, pink, and red) (Not replaceable)	5 colors LED (white, green, pink, orange, and red) (Not replaceable)
	Function	Status control (color, on/flashing/off) is available and screen save time setting can be set.		←
	Life	-		Approx. 50000 h (operating ambient temperature: 25 °C, display brightness: 50%)
Touch panel	Method	Matrix resistive film touch panel		Analog resistive film touch panel
	Number of touch keys	Maximum 50 keys/screen (Number of touch keys include Window screen.)		Maximum 100 keys/screen (Number of touch keys include Window screen.)
	Key size	Minimum 16 ×16 dots (per key)		Minimum 2 × 2 dots (per key)
	Simultaneous press	Max. 2 points		Not allowed
	Life	1 million times or more (operating force 0.98N max.)		←

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Item		Used models		Recommended replacement models
		GT1030-HBD GT1030-HWD	GT1030-HBDW GT1030-HWDW	GT2104-PMBDS
Memory	User memory	Built-in flash memory (1.5 MB or less)		Built-in flash memory (6 MB or less)
	Life (Number of write times)	100000 times		←
Battery	Type	GT11-50BAT type lithium battery		←
	Life	Approx. 5 years (operating ambient temperature: 25 °C)		←
Built-in interface	RS-422/485 (side)	Specifications	1 channel Connector shape: Connector terminal block 9 pins Application: PLC communication	←
		Cables	Example: GT10-C30R4-8PC	←
	RS-232 (back)	Specifications	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection, barcode reader connection, or serial printer connection	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection*1, PLC communication, barcode reader connection, or serial printer connection
		Cables	Example: GT01-C30R2-6P	←
	USB (Device)		Mounting the separately sold GT10-RS2TUSB-5S is required.	1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back) Application: Personal computer connection
	Memory loader		The separately sold GT10-LDR	The separately sold SD card (SDHC card supported (max. 32 GB))
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←
Protective structure		Equivalent to IP67F (front section)		←
External dimensions		W145 (5.71) × H76 (2.99) × D29.5 (1.16) [mm] (inch)		←
Panel cutting dimensions		W137 (5.39) × H66 (2.60) [mm] (inch)		←
Weight (excluding mounting brackets)		0.3kg		←
Compatible software package		GT Designer3 Version1.18U or later		GT Works3 Version1.131M or later
Orientation		Horizontal or vertical		←
Product installation spacing		p,39 reference		p,39 reference
Installation position		p,41 reference		p,41 reference
Power supply voltage		24 V DC (+10%, -15%)		←
Power consumption	Backlight ON	2.2W or less		2.2W or less
	Backlight OFF	1.7W or less		1.5W or less
OS		Installed before shipment		Installed by user

\*1 This cable is usable for the FA transparent function only. (It cannot be used to write the package data.)

**3.4 GT1030-H□D(W)2 and GT2104-PMBDS2 comparison**

Item	Used models		Recommended replacement models	
	GT1030-HBD2 GT1030-HWD2	GT1030-HBDW2 GT1030-HWDW2	GT2104-PMBDS2	
Conformity standard	CE (EMC, RoHS), UL/cUL, and KC		←	
Display section	Type	STN monochrome (white/black) liquid crystal		TFT monochrome liquid crystal
	Screen size	4.5"		←
	Resolution	288 × 96 dots		384 × 128 dots
	Display size	W109.42 (4.31) × H35.98 (1.42) [mm] (inch)		W109.4 (4.31) × H36.5 (1.44) [mm] (inch)
	Display character	16-dot standard font: 18 characters × 6 lines 12-dot standard font: 24 characters × 8 lines		16-dot standard font: 24 characters × 8 lines 12-dot standard font: 32 characters × 10 lines
	Display color	Monochrome (white/black)		Monochrome (white/black) 32 scales
	Display angle	Left/Right: 30 degrees, Top: 20 degrees, Bottom: 30 degrees (Horizontal format)		Nondisclosure
	Contrast adjustment	16-level adjustment		-
	Intensity of LCD only	200[cd/m <sup>2</sup> ] (Green)	500[cd/m <sup>2</sup> ] (White)	Nondisclosure
	Intensity adjustment	8-level adjustment		32-level adjustment
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)		-
	Maximum number of screens that can be registered	1024 screens		2048 screens
Backlight	Color	LED with 3 available colors (green, orange, and red) (Not replaceable)	LED with 3 available colors (white, pink, and red) (Not replaceable)	5 colors LED (white, green, pink, orange, and red) (Not replaceable)
	Function	Status control (color, on/flashing/off) is available and screen save time setting can be set.		←
	Life	-		Approx. 50000 h (operating ambient temperature: 25 °C, display brightness: 50%)
Touch panel	Method	Matrix resistive film touch panel		Analog resistive film touch panel
	Number of touch keys	Maximum 50 keys/screen (Number of touch keys include Window screen.)		Maximum 100 keys/screen (Number of touch keys include Window screen.)
	Key size	Minimum 16 × 16 dots (per key)		Minimum 2 × 2 dots (per key)
	Simultaneous press	Max. 2 points		Not allowed
	Life	1 million times or more (operating force 0.98N max.)		←

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Item		Used models		Recommended replacement models
		GT1030-HBD2 GT1030-HWD2	GT1030-HBDW2 GT1030-HWDW2	GT2104-PMBDS2
Memory	User memory	Built-in flash memory (1.5 MB or less)		Built-in flash memory (6 MB or less)
	Life (Number of write times)	100000 times		←
Battery	Type	GT11-50BAT type lithium battery		←
	Life	Approx. 5 years (operating ambient temperature: 25 °C)		←
Built-in interface	RS-422/485 (side)	Specifications	1 channel Connector shape: Connector terminal block 9 pins Application: PLC communication	←
		Cables	Example: GT10-C30R4-8PC	←
	RS-232 (side)	Specifications	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection, barcode reader connection, or serial printer connection	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection*1, PLC communication, barcode reader connection, or serial printer connection
		Cables	Example: GT01-C30R2-6P	←
	USB (Device)	Mounting the separately sold GT10-RS2TUSB-5S is required.		1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back) Application: Personal computer connection
	Memory loader	The separately sold GT10-LDR		The separately sold SD card (SDHC card supported (max. 32 GB))
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←
Protective structure		Equivalent to IP67F (front section)		←
External dimensions		W145 (5.71) × H76 (2.99) × D29.5 (1.16) [mm] (inch)		←
Panel cutting dimensions		W137 (5.39) × H66 (2.60) [mm] (inch)		←
Weight (excluding mounting brackets)		0.3kg		←
Compatible software package		GT Designer3 Version1.18U or later		GT Works3 Version1.137T or later
Orientation		Horizontal or vertical		←
Product installation spacing		p,55 reference		p,55 reference
Installation position		p,57 reference		p,57 reference
Power supply voltage		24 V DC (+10%, -15%)		←
Power consumption	Backlight ON	1.9W or less		2.2W or less
	Backlight OFF	1.2W or less		1.5W or less
OS		Installed before shipment		Installed by user

\*1 This cable is usable for the FA transparent function only. (It cannot be used to write the package data.)

**3.5 GT1030-H□L(W) and GT2104-PMBLS comparison**

Item	Used models		Recommended replacement models	
	GT1030-HBL GT1030-HWL	GT1030-HBLW GT1030-HWLW	GT2104-PMBLS	
Conformity standard	CE (EMC, RoHS), UL/cUL, and KC		←	
Display section	Type	STN monochrome (white/black) liquid crystal		TFT monochrome liquid crystal
	Screen size	4.5"		←
	Resolution	288 ×96 dots		384 ×128 dots
	Display size	W109.42 (4.31) × H35.98 (1.42) [mm] (inch)		W109.4 (4.31) × H36.5 (1.44) [mm] (inch)
	Display character	16-dot standard font: 18 characters × 6 lines 12-dot standard font: 24 characters × 8 lines		16-dot standard font: 24 characters × 8 lines 12-dot standard font: 32 characters × 10 lines
	Display color	Monochrome (white/black)		Monochrome (white/black) 32 scales
	Display angle	Left/Right: 30 degrees, Top: 20 degrees, Bottom: 30 degrees (Horizontal format)		Nondisclosure
	Contrast adjustment	16-level adjustment		-
	Intensity of LCD only	200[cd/m <sup>2</sup> ] (Green)	500[cd/m <sup>2</sup> ] (White)	Nondisclosure
	Intensity adjustment	8-level adjustment		32-level adjustment
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)		-
	Maximum number of screens that can be registered	1024 screens		2048 screens
Backlight	Color	LED with 3 available colors (green, orange, and red) (Not replaceable)	LED with 3 available colors (white, pink, and red) (Not replaceable)	5 colors LED (white, green, pink, orange, and red) (Not replaceable)
	Function	Status control (color, on/flashing/off) is available and screen save time setting can be set.		-
	Life	-		Approx. 50000 h (operating ambient temperature: 25 °C, display brightness: 50%)
Touch panel	Method	Matrix resistive film touch panel		Analog resistive film touch panel
	Number of touch keys	Maximum 50 keys/screen (Number of touch keys include Window screen.)		Maximum 100 keys/screen (Number of touch keys include Window screen.)
	Key size	Minimum 16 ×16 dots (per key)		Minimum 2 × 2 dots (per key)
	Simultaneous press	Max. 2 points		Not allowed
	Life	1 million times or more (operating force 0.98N max.)		←

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Item		Used models		Recommended replacement models
		GT1030-HBL GT1030-HWL	GT1030-HBLW GT1030-HWLW	GT2104-PMBLS
Memory	User memory	Built-in flash memory (1.5 MB or less)		Built-in flash memory (6 MB or less)
	Life (Number of write times)	100000 times		←
Battery	Type	GT11-50BAT type lithium battery		←
	Life	Approx. 5 years (operating ambient temperature: 25 °C)		←
Built-in interface	RS-422 (side)	Specifi- cations	1 channel Connector shape: Connector terminal block 9 pins Application: PLC communication/power feeding	←
		Cables	Example: GT10-C30R4-8PC	←
	RS-232 (back)	Specifi- cations	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection, barcode reader connection, or serial printer connection	-
		Cables	Example: GT01-C30R2-6P	-
	USB (Device)	Mounting the separately sold GT10-RS2USB-5S is required.		1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back) Application: Personal computer connection
Memory loader	The separately sold GT10-LDR		-	
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←
Protective structure		Equivalent to IP67F (front section)		←
External dimensions		W145 (5.71) × H76 (2.99) × D29.5 (1.16) [mm] (inch)		←
Panel cutting dimensions		W137 (5.39) × H66 (2.60) [mm] (inch)		←
Weight (excluding mounting brackets)		0.28kg		←
Compatible software package		GT Designer3 Version 1.18U or later		GT Works3 Version 1.137T or later
Orientation		Horizontal or vertical		←
Product installation spacing		p,39 reference		p,39 reference
Installation position		p,41 reference		p,41 reference
Power supply voltage		5 V DC (+5%, -5%) Power from the PLC		←
Power consumption	Backlight ON	1.1W or less		←
	Backlight OFF	0.6W or less		0.7W or less
OS		Installed before shipment		Installed by user

**3.6 GT1020-L□D(W) and GT2103-PMBDS comparison**

Item	Used models		Recommended replacement models	
	GT1020-LBD GT1020-LWD	GT1020-LBDW GT1020-LWDW	GT2103-PMBDS	
Conformity standard	CE (EMC, RoHS) and UL/cUL		←	
Display section	Type	STN monochrome (white/black) liquid crystal		TFT monochrome (white/Black) liquid crystal
	Screen size	3.7"		3.8"
	Resolution	160 × 64 dots		320 × 128 dots
	Display size	W86.4 (3.4) × H34.5 (1.35) [mm] (inch) (Horizontal format)		W89.0 (3.50) × H 35.6 (1.40) [mm] (inch) (Horizontal format)
	Display character	16-dot standard font: 10 characters × 4 lines 12-dot standard font: Not available		16-dot standard font: 20 characters × 8 lines 12-dot standard font: 26 characters × 10 lines
	Display color	Monochrome (white/black)		Monochrome (white/Black) 32 scales
	Display angle	Left/Right: 30 degrees, Top: 20 degrees, Bottom: 30 degrees (Horizontal format)		Nondisclosure
	Contrast adjustment	16-level adjustment		-
	Intensity of LCD only	200[cd/m <sup>2</sup> ] (Green)	300[cd/m <sup>2</sup> ] (White)	Nondisclosure
	Intensity adjustment	-		32-level adjustment
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)		-
Maximum number of screens that can be registered	1024 screens		2048 screens	
Backlight	Color	LED with 3 available colors (green, orange, and red) (Not replaceable)	LED with 3 available colors (white, pink, and red) (Not replaceable)	5 colors LED (white, green, pink, orange, and red) (Not replaceable)
	Function	Status control (color, on/flashing/off) is available and screen save time setting can be set.		←
	Life	-		Approx. 50000 h (operating ambient temperature: 25 °C, display brightness: 50%)
Touch panel	Method	Analog resistive film touch panel		←
	Number of touch keys	Maximum 50 keys/screen		Maximum 100 keys/screen (Number of touch keys include Window screen.)
	Key size	Minimum 2 × 2 dots (per key)		←
	Simultaneous press	Not allowed		←
	Life	1 million times or more (operating force 0.98N max.)		←

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Item		Used models		Recommended replacement models
		GT1020-LBD GT1020-LWD	GT1020-LBDW GT1020-LWDW	GT2103-PMBDS
Memory	User memory	Built-in flash memory (512kB or less)		Built-in flash memory (3 MB or less)
	Life (Number of write times)	100000 times		←
Battery	Type	-		-
	Life	-		-
Built-in interface	RS-422/485 (side)	Specifications	1 channel Connector shape: Connector terminal block 9 pins Application: PLC communication	←
		Cables	Example: GT10-C□□□R4-8P	←
	RS-232 (back)	Specifications	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection, barcode reader connection, or serial printer connection	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection*1, PLC communication, barcode reader connection, or serial printer connection
		Cables	Example: GT01-C30R2-6P	←
	USB (Device)	Mounting the separately sold GT10-RS2TUSB-5S is required.		1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back)
	Memory loader	The separately sold GT10-LDR		The separately sold SD card (SDHC card supported (max. 32 GB))*2
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←
Protective structure		Equivalent to IP67F (front section)		←
External dimensions		W113 (4.45) × H74 (2.91) × D27 (1.06)		←
Panel cutting dimensions		W105 (4.13) × H66 (2.60) [mm] (inch)		←
Weight (excluding mounting brackets)		0.2kg		←
Compatible software package		GT Designer3 Version1.00A or later/ GT Designer2 Version2.35M or later	GT Designer3 Version1.00A or later/ GT Designer2 Version 2.55H or later	GT Designer3 Version1.112S or later
Orientation		Horizontal or vertical		←
Product installation spacing		p,39 reference		p,39 reference
Installation position		p,41 reference		p,41 reference
Power supply voltage		24 V DC (+10%, -15%)		←
Power consumption	Backlight ON	1.9W or less		←
	Backlight OFF	1.2W or less		1.3W or less
OS		Installed before shipment		Installed by user

\*1 This cable is usable for the FA transparent function only. (It cannot be used to write the package data.)

\*2 The separately sold SD card unit (GT21-03SDCD) is required.

**3.7 GT1020-L□D(W)2 and GT2103-PMBDS2 comparison**

Item	Used models		Recommended replacement models	
	GT1020-LBD2 GT1020-LWD2	GT1020-LBDW2 GT1020-LWDW2	GT2103-PMBDS2	
Conformity standard	CE (EMC, RoHS) and UL/cUL		←	
Display section	Type	STN monochrome (white/Black) liquid crystal		
	Screen size	3.7"		
	Resolution	160 × 64 dots		
	Display size	W86.4 (3.4) × H34.5 (1.35) [mm] (inch) (Horizontal format)		
	Display character	16-dot standard font: 10 characters × 4 lines 12-dot standard font: Not available		
	Display color	Monochrome (white/Black)		
	Display angle	Left/Right: 30 degrees, Top: 20 degrees, Bottom: 30 degrees (Horizontal format)		
	Contrast adjustment	16-level adjustment		
	Intensity of LCD only	200[cd/m <sup>2</sup> ](Green)	300[cd/m <sup>2</sup> ](White)	Nondisclosure
	Intensity adjustment	-		
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)		
Maximum number of screens that can be registered	1024 screens		2048 screens	
Backlight	Color	LED with 3 available colors (green, orange, and red) (Not replaceable)	LED with 3 available colors (white, pink, and red) (Not replaceable)	5 colors LED (white, green, pink, orange, and red) (Not replaceable)
	Function	Status control (color, on/flashing/off) is available and screen save time setting can be set.		←
	Life	-		Approx. 50000 h (operating ambient temperature: 25 °C, display brightness: 50%)
Touch panel	Method	Analog resistive film touch panel		←
	Number of touch keys	Maximum 50 keys/screen (Number of touch keys include Window screen.)		Maximum 100 keys/screen (Number of touch keys include Window screen.)
	Key size	Minimum 2 × 2 dots (per key)		←
	Simultaneous press	Not allowed		←
	Life	1 million times or more (operating force 0.98N max.)		←

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Item		Used models		Recommended replacement models
		GT1020-LBD2 GT1020-LWD2	GT1020-LBDW2 GT1020-LWDW2	GT2103-PMBDS2
Memory	User memory	Built-in flash memory (512 KB or less)		Built-in flash memory (3 MB or less)
	Life (Number of write times)	100000 times		←
Battery	Type	-		-
	Life	-		-
Built-in interface	RS-232 (side)	Specifications	1 channel Connector shape: Connector terminal block 9 pins Application: PLC communication	←
		Cables	Example: GT10-C30R2-8P	←
	RS-232 (back)	Specifications	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection, barcode reader connection, or serial printer connection	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection*1, PLC communication, barcode reader connection, or serial printer connection
		Cables	Example: GT01-C30R2-6P	←
	USB (Device)	Mounting the separately sold GT10-RS2TUSB-5S is required.		1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back)
	Memory loader	The separately sold GT10-LDR		The separately sold SD card (SDHC card supported (max. 32 GB))*2
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←
Protective structure		Equivalent to IP67F (front section)		←
External dimensions		W113 (4.45) × H74 (2.91) × D27 (1.06)		←
Panel cutting dimensions		W105 (4.13) × H66 (2.60) [mm] (inch)		←
Weight (excluding mounting brackets)		0.2kg		←
Compatible software package		GT Designer3 Version1.00A or later/ GT Designer2 Version 2.35M or later	GT Designer3 Version1.00A or later/ GT Designer2 Version 2.55N or later	GT Designer3 Version1.112S or later
Orientation		Horizontal or vertical		←
Product installation spacing		p,39 reference		p,39 reference
Installation position		p,41 reference		p,41 reference
Power supply voltage		24 V DC (+10%, -15%)		←
Power consumption	Backlight ON	1.9W or less		2.2W or less
	Backlight OFF	1.2W or less		1.6W or less
OS		Installed before shipment		Installed by user

\*1 This cable is usable for the FA transparent function only. (It cannot be used to write the package data.)

\*2 The separately sold SD card unit (GT21-03SDCD) is required.

**3.8 GT1020-L□L(W) and GT2103-PMBLS comparison**

Item	Used models		Recommended replacement models	
	GT1020-LBL GT1020-LWL	GT1020-LBLW GT1020-LWLW	GT2103-PMBLS	
Conformity standard	CE (EMC, RoHS) and UL/cUL		←	
Display section	Type	STN monochrome (white/Black) liquid crystal		TFT monochrome (white/black) liquid crystal
	Screen size	3.7"		3.8"
	Resolution	160 × 64 dots		320 × 128 dots
	Display size	W86.4 (3.4) × H34.5 (1.35) [mm] (inch) (Horizontal format)		W 89.0 (3.50) × H 35.6 (1.40) [mm] (inch) (Horizontal format)
	Display character	16-dot standard font: 10 characters × 4 lines 12-dot standard font: Not available		16-dot standard font: 20 characters × 8 lines 12-dot standard font: 26 characters × 10 lines
	Display color	Monochrome (white/Black)		Monochrome (white/black) 32 scales
	Display angle	Left/Right: 30 degrees, Top: 20 degrees, Bottom: 30 degrees (Horizontal format)		Nondisclosure
	Contrast adjustment	16-level adjustment		-
	Intensity of LCD only	200[cd/m <sup>2</sup> ](Green)	300[cd/m <sup>2</sup> ](White)	Nondisclosure
	Intensity adjustment	-		32-level adjustment
	Life	Approx. 50000 h. (operating ambient temperature: 25 °C, contrast: 1/5)		-
Maximum number of screens that can be registered	1024 screens		2048 screens	
Backlight	Color	LED with 3 available colors (green, orange, and red) (Not replaceable)	LED with 3 available colors (white, pink, and red) (Not replaceable)	5 colors LED (white, green, pink, orange, and red) (Not replaceable)
	Function	Status control (color, on/flashing/off) is available and screen save time setting can be set.		←
	Life	-		Approx. 50000 h (operating ambient temperature: 25 °C, display brightness: 50%)
Touch panel	Method	Analog resistive film touch panel		←
	Number of touch keys	Maximum 50 keys/screen (Number of touch keys include Window screen.)		Maximum 100 keys/screen (Number of touch keys include Window screen.)
	Key size	Minimum 2 × 2 dots (per key)		←
	Simultaneous press	Not allowed		←
	Life	1 million times or more (operating force 0.98N max.)		←

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Item		Used models		Recommended replacement models
		GT1020-LBL GT1020-LWL	GT1020-LBLW GT1020-LWLW	GT2103-PMBLS
Memory	User memory	Built-in flash memory (512 KB or less)		Built-in flash memory (3 MB or less)
	Life (Number of write times)	100000 times		←
Battery	Type	-		-
	Life	-		-
Built-in interface	RS-422 (side)	Specifi- cations	1 channel Connector shape: Connector terminal block 9 pins Application: PLC communication/power feeding	←
		Cables	Example: GT10-C30R4-8P	←
	RS-232 (back)	Specifi- cations	1 channel Connector shape: MINI DIN 6 pins (Female) Application: Personal computer connection, barcode reader connection, or serial printer connection	-
		Cables	Example: GT01-C30R2-6P	-
	USB (Device)	Mounting the separately sold GT10-RS2USB-5S is required.		1 channel, maximum transfer rate: Full-Speed 12 Mbps Connector shape: USB Mini-B (back)
	Memory loader	The separately sold GT10-LDR		-
Buzzer output		Single tone (LONG/ SHORT/ OFF adjustable)		←
Protective structure		Equivalent to IP67F (front section)		←
External dimensions		W113 (4.45) × H74 (2.91) × D27 (1.06)		←
Panel cutting dimensions		W105 (4.13) × H66 (2.60) [mm] (inch)		←
Weight (excluding mounting brackets)		0.18kg		←
Compatible software package		GT Designer3 Version1.00A or later/ GT Designer2 Version 2.35M or later	GT Designer3 Version1.00A or later/ GT Designer2 Version 2.55N or later	GT Designer3 Version1.112S or later
Orientation		Horizontal or vertical		←
Product installation spacing		p,39 reference		p,39 reference
Installation position		p,41 reference		p,41 reference
Power supply voltage		5 V DC (+5%, -5%) Power from the PLC		←

[Issue No.] GOT-A-0152-A

Item		Used models		Recommended replacement models
		GT1020-LBL GT1020-LWL	GT1020-LBLW GT1020-LWLW	GT2103-PMBLS
Power consumption	Backlight ON	1.1W or less		←
	Backlight OFF	0.6W or less		0.7W or less
OS		Installed before shipment		Installed by user

**4. Software specifications comparison**

**4.1 GOT105□ and GT2105-Q comparison**

Used models		Recommended replacement models		Precaution during replacement
GT105□		GT2105-Q		
Common setting	GOT environmental setting	System security setting	→ Functional operation security Data transfer security	System security setting in GOT1000 becomes "functional operation security" and "data transfer security" in GOT2000.
	Comment	Basic comment	→ Comment group No. 256	Basic comment in GOT1000 becomes comment group No. 256 in GOT2000.
	Hard Copy	Abort trigger watch cycle	→ No setting (ordinary watch cycle)	Abort trigger watch cycle in GOT1000 does not exist in GOT2000. It operates as the ordinary watch cycle.
	Alarm	Alarm history	→ User alarm observation (historical mode)	Alarm history in GOT1000 becomes user alarm observation (historical mode) in GOT2000.
		Alarm flow	→ Alarm popup display (flow)	Alarm flow in GOT1000 was changed to alarm popup display (flow) in GOT2000 series.
	Recipe	Checkbox for 'Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup'	→ Record attribute 'Not to set the device value'	For the checkbox of "Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup" in GOT1000, the record attribute "Not to set the device value" is the equivalent setting in GOT2000. When the check box is unchecked in GOT1000, select the equivalent setting in GOT2000.
Status observation	Status observation	→ Trigger action	Status observation in GOT1000 becomes trigger action in GOT2000.	
Object	Word Switch	Initial value condition	→ Initial value condition	<p>If the initial value condition is set in the GT10 model, setting the condition value again is required in the GT21 model.</p> <p>In the GT10 model, the device value is reset to the reset value when it is equal to or more (less) than the condition value.</p> <p>In the GT21 model, the device value is reset to the reset value when it is over (under) the condition value.</p> <p>Example:• Mode: Data Addition</p> <ul style="list-style-type: none"> <li>• Variation: 1</li> <li>• Condition Value: 10</li> <li>• Reset Value: 0</li> </ul> <p>&lt;GT10 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 0 → 1</p> <p>&lt;GT21 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 10 → 0 → 1</p>

Used models			Recommended replacement models	Precaution during replacement
GT105□			GT2105-Q	
Object	Numerical input	Adjust decimal point range Input case	→ Adjust decimal point range Input case	<p>If real number display format, adjust decimal point range, and display case settings are made for data type other than real number in the GT10 model, input case setting must be remade in the GT21 model.</p> <p>The GT10 model checks the range of the actual input value. The GT21 model checks the range of the value displayed on the screen.</p> <p>Example: Setting the input case as 0 to 100</p> <p style="padding-left: 40px;">In the case of 2 decimal points, &lt;GT10 model&gt; Input case setting: 0 to 10000 &lt;GT21 model&gt; Input case setting: Remake setting as 0 to 100 required</p>
	Numerical input Numerical display	Data operation	→ Data operation	<p>If the data type is other than real number and real number display format is set in the GT10 model, the result of division or any operation is rounded down to the nearest integer.</p> <p>For the same settings in the GT21 model, decimal numbers are displayed.</p> <p>Rounding (Round off, Round up, or Round down) for decimal numbers can be set.</p> <p>After the conversion, this setting becomes round off.</p> <p>Example: • Device type: BIN16</p> <ul style="list-style-type: none"> <li>• Format: Real</li> <li>• Digits (fractional): 1</li> <li>• Operation: Monitor (Data expression) \$\$/100</li> <li>• Input value: 156</li> </ul> <p>&lt;GT10 model&gt; Monitor value: 1.0 &lt;GT21 model&gt; Round off: 1.6, Round down: 1.5, Round up: 1.6</p>
	ASCII input ASCII display	ASCII input ASCII display	→ ASCII input Text display	<p>ASCII input and ASCII display in GOT1000 become text input and text display in GOT2000.</p>
	Alarm history display	Alarm history display	→ Alarm display (User)	<p>Alarm history display in GOT1000 becomes alarm display (user) in GOT2000.</p> <p>Selectable font size differs when a standard font is selected.</p> <p>&lt;GT10 model&gt; 0.5 to 8 times &lt;GT21 model&gt; 1 to 8 times</p>
	User alarm display	User alarm display	→ Simple alarm display	<p>User alarm display in GOT1000 becomes simple alarm display in GOT2000.</p>

**4.2 GOT104□ and GT2104-R comparison**

Used models		Recommended replacement models		Precaution during replacement
GT104□		GT2104-R		
Common setting	GOT environmental setting	System security setting	→ Functional operation security Data transfer security	System security setting in GOT1000 becomes "functional operation security" and "data transfer security" in GOT2000.
		Startup logo	→ Startup logo	Startup logo is not automatically enlarged or reduced to fit the new resolution. If GT1040 (monochrome liquid crystal) is used, adjusting the startup logo may be required since its color is changed from 16 scales to 65536 colors.
	Comment	Basic comment	→ Comment group No. 256	Basic comment in GOT1000 becomes comment group No. 256 in GOT2000.
	Hard Copy	Abort trigger watch cycle	→ No setting (ordinary watch cycle)	Abort trigger watch cycle in GOT1000 does not exist in GOT2000. It operates as the ordinary watch cycle.
	Alarm	Alarm history	→ User alarm observation (historical mode)	Alarm history in GOT1000 becomes user alarm observation (historical mode) in GOT2000.
		Alarm flow	→ Alarm popup display (flow)	Alarm flow in GOT1000 was changed to alarm popup display (flow) in GOT2000.
	Recipe	Checkbox for 'Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup'	→ Record attribute 'Not to set the device value'	For the checkbox of "Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup" in GOT1000, the record attribute "Not to set the device value" is the equivalent setting in GOT2000. When the check box is unchecked in GOT1000, select the equivalent setting in GOT2000.
Status observation	Status observation	→ Trigger action	Status observation in GOT1000 becomes trigger action in GOT2000.	
Layout	-	-	→ -	Since the resolutions of the GT104□ model and GT2104-R model differ, adjusting the layout may be required.
Object	All	Style	→ Style	If GT1040 (monochrome liquid crystal) is used, adjusting the color of each object may be required since the color setting is changed from 16 scales to 65536 colors.

Used models			Recommended replacement models	Precaution during replacement
GT104□			GT2104-R	
Object	Word Switch	Initial value condition	→ Initial value condition	<p>If the initial value condition is set in the GT10 model, setting the condition value again is required in the GT21 model.</p> <p>In the GT10 model, the device value is reset to the reset value when it is equal to or more (less) than the condition value.</p> <p>In the GT21 model, the device value is reset to the reset value when it is over (under) the condition value.</p> <p>Example: • Mode: Data Addition</p> <ul style="list-style-type: none"> <li>• Variation: 1</li> <li>• Condition Value: 10</li> <li>• Reset Value: 0</li> </ul> <p>&lt;GT10 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 0 → 1</p> <p>&lt;GT21 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 10 → 0 → 1</p>
	Numerical input	Adjust decimal point range Input case	→ Adjust decimal point range Input case	<p>If real number display format, adjust decimal point range, and display case settings are made for data type other than real number in the GT10 model, input case setting must be remade in the GT21 model.</p> <p>The GT10 model checks the range of the actual input value. The GT21 model checks the range of the value displayed on the screen.</p> <p>Example: Setting the input case as 0 to 100</p> <p>In the case of 2 decimal points,</p> <p>&lt;GT10 model&gt; Input case setting: 0 to 10000</p> <p>&lt;GT21 model&gt; Input case setting: Remake setting as 0 to 100 required</p>

Used models			Recommended replacement models	Precaution during replacement
GT104□			GT2104-R	
Object	Numerical input Numerical display	Data operation	→ Data operation	<p>If the data type is other than real number and real number display format is set in the GT10 model, the result of division or any operation is rounded down to the nearest integer.</p> <p>For the same settings in the GT21 model, decimal numbers are displayed.</p> <p>Rounding (Round off, Round up, or Round down) for decimal numbers can be set.</p> <p>After the conversion, this setting becomes round off.</p> <p>Example: • Device type: BIN16</p> <ul style="list-style-type: none"> <li>• Format: Real</li> <li>• Digits (fractional): 1</li> <li>• Operation: Monitor (Data expression) \$\$/100</li> <li>• Input value: 156</li> </ul> <p>&lt;GT10 model&gt; Monitor value: 1.0 &lt;GT21 model&gt; Round off: 1.6, Round down: 1.5, Round up: 1.6</p>
	ASCII input ASCII display	ASCII input ASCII display	→ ASCII input Text display	ASCII input and ASCII display in GOT1000 become text input and text display in GOT2000.
	Alarm history display	Alarm history display	→ Alarm display (User)	<p>Alarm history display in GOT1000 becomes alarm display (user) in GOT2000.</p> <p>Selectable font size differs when a standard font is selected.</p> <p>&lt;GT10 model&gt; 0.5 to 8 times &lt;GT21 model&gt; 1 to 8 times</p>
	User alarm display	User alarm display	→ Simple alarm display	User alarm display in GOT1000 becomes simple alarm display in GOT2000.

**4.3 GOT1030 and GT2104-P comparison**

Used models		Recommended replacement models		Precaution during replacement
GT1030		GT2104-P		
Common setting	GOT environmental setting	System security setting	→ Functional operation security Data transfer securit'	System security setting in GOT1000 becomes "functional operation security" and "data transfer security" in GOT2000.
		Startup logo	→ Startup logo	Startup logo is not automatically enlarged or reduced to fit the new resolution.
	Comment	Basic comment	→ Comment group No. 256	Basic comment in GOT1000 becomes comment group No. 256 in GOT2000.
	Hard Copy	Abort trigger watch cycle	→ No setting (ordinary watch cycle)	Abort trigger watch cycle in GOT1000 does not exist in GOT2000. It operates as the ordinary watch cycle.
	Alarm	Alarm history	→ User alarm observation (historical mode)	Alarm history in GOT1000 becomes user alarm observation (historical mode) in GOT2000.
		Alarm flow	→ Alarm popup display (flow)	Alarm flow in GOT1000 was changed to alarm popup display (flow) in GOT2000.
	Recipe	Checkbox for 'Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup'	→ Record attribute 'Not to set the device value'	For the checkbox of "Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup" in GOT1000, the record attribute "Not to set the device value" is the equivalent setting in GOT2000. When the check box is unchecked in GOT1000, select the equivalent setting in GOT2000.
Status observation	Status observation	→ Trigger action	Status observation in GOT1000 becomes trigger action in GOT2000.	
Layout	-	-	→ -	Since the resolutions of the GOT1030 model and GT2104-P model differ, adjusting the layout may be required.
Screen property	Backlight color	• Green, red, and orange • White, red, and orange	→ • Green, orange, white, pink, and red	Although the backlight colors differ depending on model in GT1030, GT2104 has 5 backlight colors. When converting a GT1030 project, select "Green/Red/Orange" or "White/Red/Pink" backlight color in the type setting window.
		Startup logo	→ Startup logo	Startup logo of GT2104-P is displayed with white backlight (fixed). It is not displayed with green.

Used models			Recommended replacement models	Precaution during replacement
GT1030			GT2104-P	
Object	Word Switch	Initial value condition	→ Initial value condition	<p>If the initial value condition is set in the GT10 model, setting the condition value again is required in the GT21 model.</p> <p>In the GT10 model, the device value is reset to the reset value when it is equal to or more (less) than the condition value.</p> <p>In the GT21 model, the device value is reset to the reset value when it is over (under) the condition value.</p> <p>Example: • Mode: Data Addition</p> <ul style="list-style-type: none"> <li>• Variation: 1</li> <li>• Condition Value: 10</li> <li>• Reset Value: 0</li> </ul> <p>&lt;GT10 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 0 → 1</p> <p>&lt;GT21 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 10 → 0 → 1</p>
	Numerical input	Adjust decimal point range Input case	→ Adjust decimal point range Input case	<p>If real number display format, adjust decimal point range, and display case settings are made for data type other than real number in the GT10 model, input case setting must be remade in the GT21 model.</p> <p>The GT10 model checks the range of the actual input value. The GT21 model checks the range of the value displayed on the screen.</p> <p>Example: Setting the input case as 0 to 100</p> <p>In the case of 2 decimal points,</p> <p>&lt;GT10 model&gt; Input case setting: 0 to 10000</p> <p>&lt;GT21 model&gt; Input case setting: Remake setting as 0 to 100 required</p>
	Numerical input Numerical display	Data operation	→ Data operation	<p>If the data type is other than real number and real number display format is set in the GT10 model, the result of division or any operation is rounded down to the nearest integer.</p> <p>For the same settings in the GT21 model, decimal numbers are displayed.</p> <p>Rounding (Round off, Round up, or Round down) for decimal numbers can be set.</p> <p>After the conversion, this setting becomes round off.</p> <p>Example: • Device type: BIN16</p> <ul style="list-style-type: none"> <li>• Format: Real</li> <li>• Digits (fractional): 1</li> <li>• Operation: Monitor (Data expression) \$\$/100</li> <li>• Input value: 156</li> </ul> <p>&lt;GT10 model&gt; Monitor value: 1.0</p> <p>&lt;GT21 model&gt; Round off: 1.6, Round down: 1.5, Round up: 1.6</p>

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Used models			Recommended replacement models	Precaution during replacement
GT1030			GT2104-P	
Object	ASCII input ASCII display	ASCII input ASCII display	→ ASCII input Text display	ASCII input and ASCII display in GOT1000 become text input and text display in GOT2000.
	Alarm history display	Alarm history display	→ Alarm display (User)	Alarm history display in GOT1000 becomes alarm display (user) in GOT2000. Selectable font size differs when a standard font is selected. <GT10 model> 0.5 to 8 times <GT21 model> 1 to 8 times
	User alarm display	User alarm display	→ Simple alarm display	User alarm display in GOT1000 becomes simple alarm display in GOT2000.

**4.4 GOT1020 and GT2103-P comparison**

Used models		Recommended replacement models		Precaution during replacement
GT1020		GT2103-P		
Common setting	GOT environmental setting	System security setting	→ Functional operation security Data transfer security	System security setting in GOT1000 becomes "functional operation security" and "data transfer security" in GOT2000.
		Startup logo	→ Startup logo	Startup logo is not automatically enlarged or reduced to fit the new resolution.
	Comment	Basic comment	→ Comment group No. 256	Basic comment in GOT1000 becomes comment group No. 256 in GOT2000.
	Hard Copy	Abort trigger watch cycle	→ No setting (ordinary watch cycle)	Abort trigger watch cycle in GOT1000 does not exist in GOT2000. It operates as the ordinary watch cycle.
	Alarm	Alarm history	→ User alarm observation (historical mode)	Alarm history in GOT1000 becomes user alarm observation (historical mode) in GOT2000.
		Alarm flow	→ Alarm popup display (flow)	Alarm flow in GOT1000 was changed to alarm popup display (flow) in GOT2000 series.
	Recipe	Checkbox for 'Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup'	→ Record attribute 'Not to set the device value'	For the checkbox of "Create a recipe file with the value set in this dialog if a recipe file is not available at the time of startup" in GOT1000, the record attribute "Not to set the device value" is the equivalent setting in GOT2000. When the check box is unchecked in GOT1000, select the equivalent setting in GOT2000.
Status observation	Status observation	→ Trigger action	Status observation in GOT1000 becomes trigger action in GOT2000.	
Screen property	Backlight color	• Green, red, and orange • White, red, and orange	→ • Green, orange, white, pink, and red	Although the backlight colors differ depending on model in GT1020, GT2103-P has 5 backlight colors. When converting a GT1020 project, select "Green/Red/Orange" or "White/Red/Pink" backlight color in the type setting window.
		Startup logo	→ Startup logo	Startup logo of GT2103-P is displayed with white backlight (fixed). It is not displayed with green.

Used models			Recommended replacement models	Precaution during replacement
GT1020			GT2103-P	
Object	Word Switch	Initial value condition	→ Initial value condition	<p>If the initial value condition is set in the GT10 model, setting the condition value again is required in the GT21 model.</p> <p>In the GT10 model, the device value is reset to the reset value when it is equal to or more (less) than the condition value.</p> <p>In the GT21 model, the device value is reset to the reset value when it is over (under) the condition value.</p> <p>Example: • Mode: Data Addition</p> <ul style="list-style-type: none"> <li>• Variation: 1</li> <li>• Condition Value: 10</li> <li>• Reset Value: 0</li> </ul> <p>&lt;GT10 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 0 → 1</p> <p>&lt;GT21 model&gt; Device value: 0 → 1 → 2 → ... → 8 → 9 → 10 → 0 → 1</p>
	Numerical input	Adjust decimal point range Input case	→ Adjust decimal point range Input case	<p>If real number display format, adjust decimal point range, and display case settings are made for data type other than real number in the GT10 model, input case setting must be remade in the GT21 model.</p> <p>The GT21 model checks the range of the value displayed on the screen.</p> <p>Example: Setting the input case as 0 to 100</p> <p>In the case of 2 decimal points,</p> <p>&lt;GT10 model&gt; Input case setting: 0 to 10000</p> <p>&lt;GT21 model&gt; Input case setting: Remake setting as 0 to 100 required</p>
	Numerical input Numerical display	Data operation	→ Data operation	<p>If the data type is other than real number and real number display format is set in the GT10 model, the result of division or any operation is rounded down to the nearest integer.</p> <p>For the same settings in the GT21 model, decimal numbers are displayed.</p> <p>Rounding (Round off, Round up, or Round down) for decimal numbers can be set.</p> <p>After the conversion, this setting becomes round off.</p> <p>Example: • Device type: BIN16</p> <ul style="list-style-type: none"> <li>• Format: Real</li> <li>• Digits (fractional): 1</li> <li>• Operation: Monitor (Data expression) \$\$/100</li> <li>• Input value: 156</li> </ul> <p>&lt;GT10 model&gt; Monitor value: 1.0</p> <p>&lt;GT21 model&gt; Round off: 1.6, Round down: 1.5, Round up: 1.6</p>

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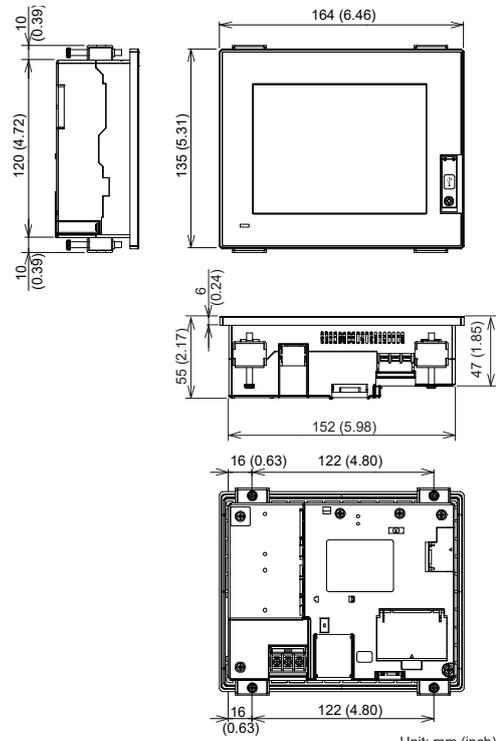
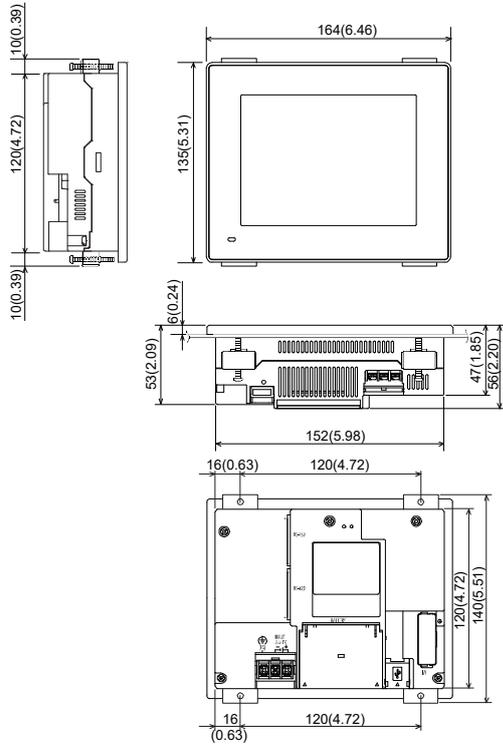
Used models			Recommended replacement models	Precaution during replacement
GT1020			GT2103-P	
Object	ASCII input ASCII display	ASCII input ASCII display	→ ASCII input Text display	ASCII input and ASCII display in GOT1000 become text input and text display in GT2000.
	Alarm history display	Alarm history display	→ Alarm display (User)	Alarm history display in GOT1000 becomes alarm display (user) in GT2000. Selectable font size differs when a standard font is selected. <GT10 model> 0.5 to 8 times <GT21 model> 1 to 8 times
	User alarm display	User alarm display	→ Simple alarm display	User alarm display in GOT1000 becomes simple alarm display in GT2000.

**5. External dimensions comparison**

**5.1 GT105□ and GT2105-Q comparison**

■GT105□

■GT2105-Q

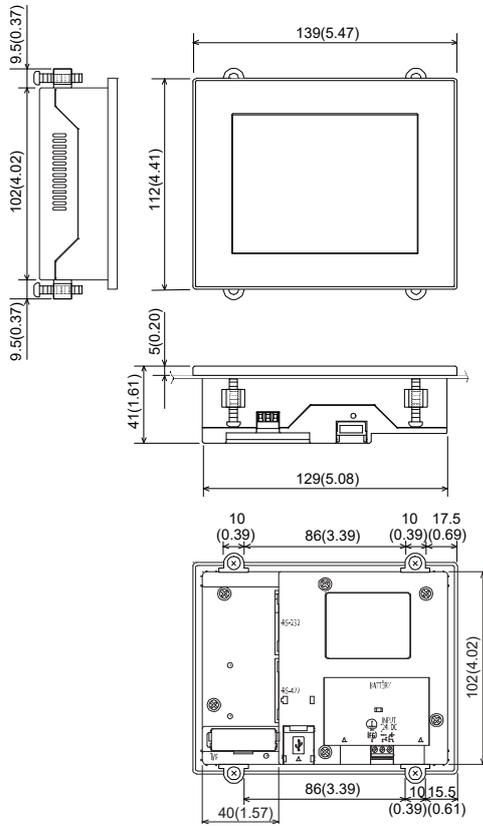


Unit: mm (inch)

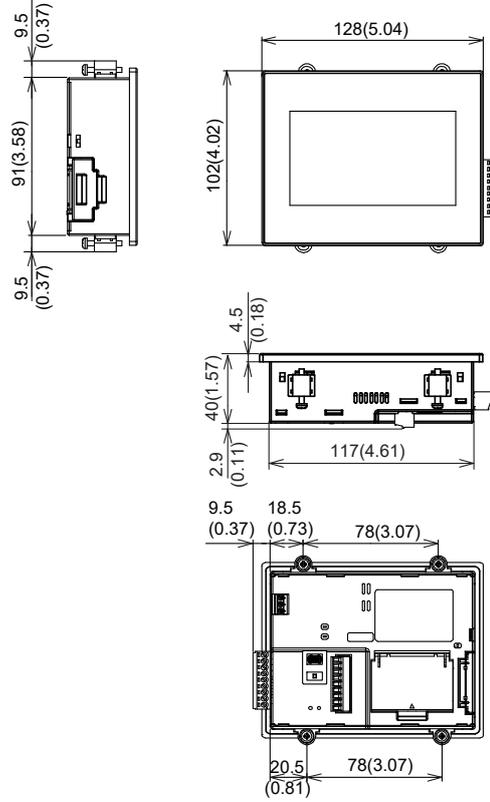
[Issue No.] GOT-A-0152-A

**5.2 GT104□ and GT2104-R comparison**

■GT104□



■GT2104-R

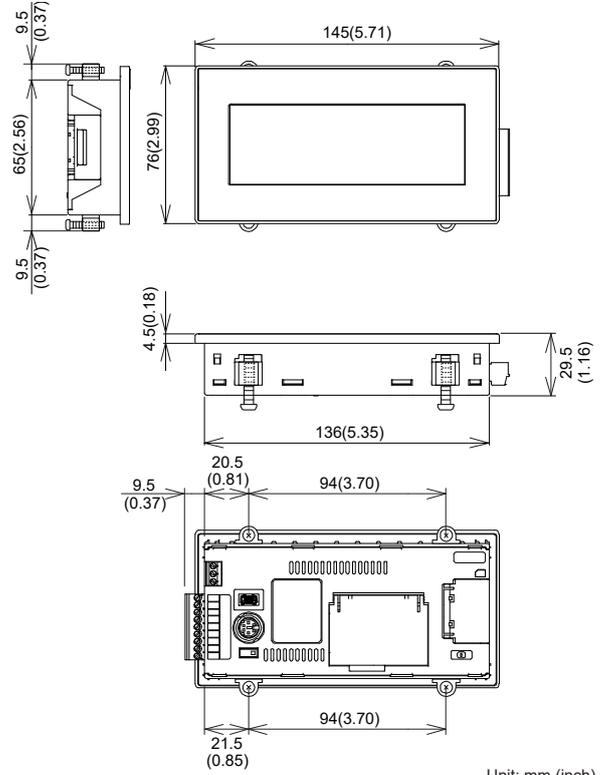
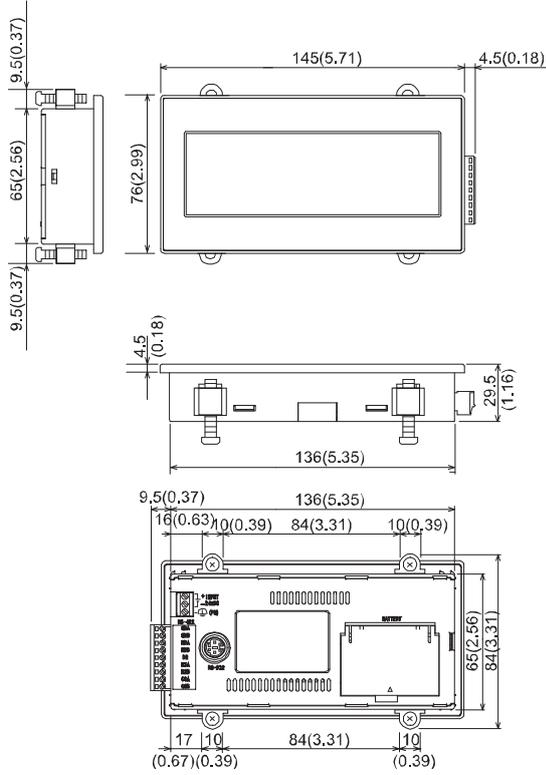


Unit: mm (inch)

**5.3 GT1030 and GT2104-P comparison**

■GT1030

■GT2104-P

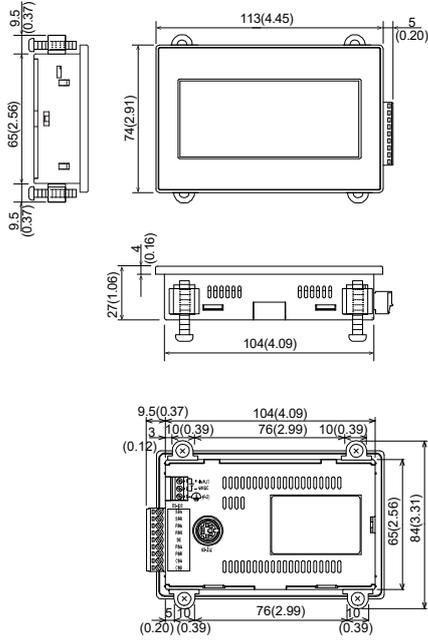


Unit: mm (inch)

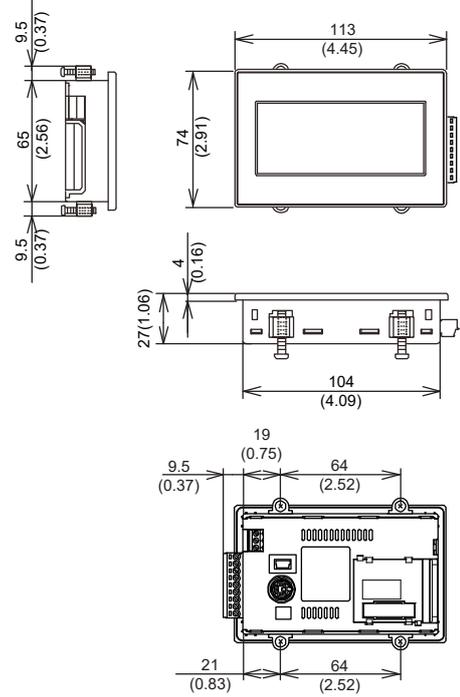
[Issue No.] GOT-A-0152-A

**5.4 GT1020 and GT2103-P comparison**

■GT1020



■GT2103-P



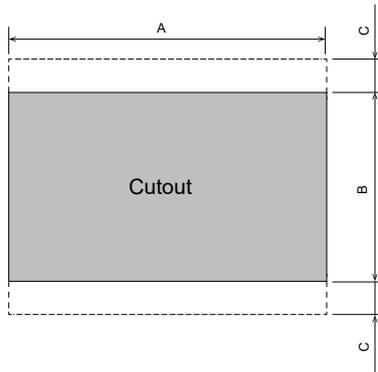
Unit: mm (inch)

**6. Panel cutout dimensions comparison**

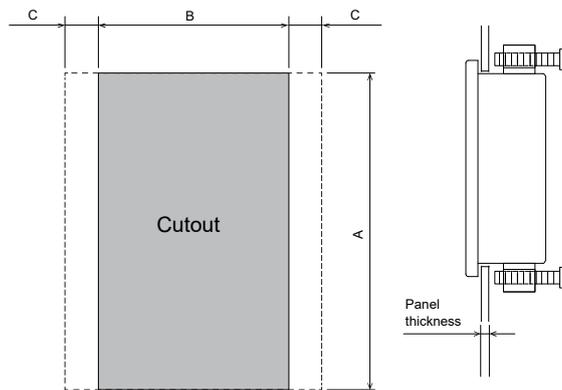
Make holes in the panel according to the dimensions below. Space at the top and bottom is required for mounting fixtures.

Unit: mm (inch)

■Horizontal



■Vertical



**6.1 GT105□ and GT2105-Q comparison**

	Used models GT105□(GOT1000)	Recommended replacement models GT2105-Q(GOT2000)
A	153 (6.02 ) $^{+2(0.08)}_0$	153 (6.02 ) $^{+2(0.08)}_0$
B	121 (4.76 ) $^{+2(0.08)}_0$	121 (4.76 ) $^{+2(0.08)}_0$
C	10 (0.39 ) or more	10 (0.39 ) or more
Panel thickness	Within 2 (0.08 ) to 5 (0.20 )	Within 1.6 (0.06 ) to 4 (0.16 )

**6.2 GT104□ and GT2104-R comparison**

	Used models GT104□(GOT1000)	Recommended replacement models GT2104-R(GOT2000)
A	130 (5.12 ) $^{+1(0.04)}_0$	118 (4.65 ) $^{+1(0.04)}_0$
B	103 (4.06 ) $^{+1(0.04)}_0$	92 (3.62 ) $^{+1(0.04)}_0$
C	13 (0.51 ) or more	13 (0.51 ) or more
Panel thickness	Within 2 (0.08 ) to 5 (0.20 )	Within 1 (0.04 ) to 4 (0.16 )

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**6.3 GT1030 and GT2104-P comparison**

	Used models	Recommended replacement models
	GT1030(GOT1000)	GT2104-P(GOT2000)
A	137 (5.39 ) $\begin{matrix} +1(0.04) \\ 0 \end{matrix}$	
B	66 (2.60 ) $\begin{matrix} +1(0.04) \\ 0 \end{matrix}$	
C	13 (0.51 ) or more	
Panel thickness	Within 1 (0.04 ) to 4 (0.16 )	

**6.4 GT1020 and GT2103-P comparison**

	Used models	Recommended replacement models
	GT1020(GOT1000)	GT2103-P(GOT2000)
A	105 (4.13 ) $\begin{matrix} +1(0.04) \\ 0 \end{matrix}$	
B	66 (2.60 ) $\begin{matrix} +1(0.04) \\ 0 \end{matrix}$	
C	13 (0.51 ) or more	
Panel thickness	Within 1 (0.04 ) to 4 (0.16 )	

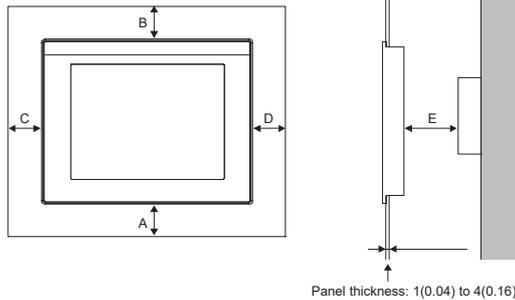
**7. Product installation spacing**

When mounting the GOT, clearances in the diagram below must be maintained from other structures and devices. Take the connector dimensions and bending radius of the cable into account.

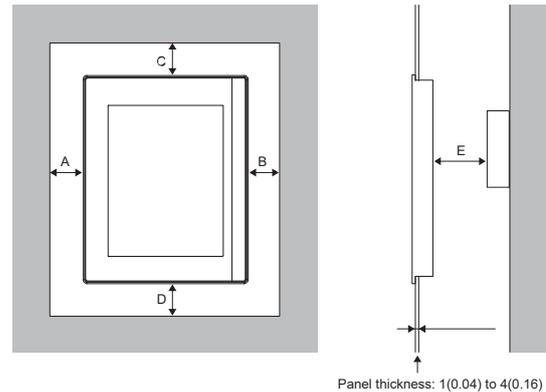
Dimensions in parentheses in the table below are applicable in the case of no radiated-noise or heat-generating equipment nearby.

Unit: mm (inch)

■Horizontal



■Vertical



**7.1 GT105□ and GT2105-Q comparison**

	Used models	Recommended replacement models
	GT105□ (GOT1000)	GT2105-Q (GOT2000)
A	50 (1.97) or more (20 (0.79) or more)	50 (1.97) or more (20 (0.79) or more)
B	80 (3.15) or more (20 (0.79) or more)	50 (1.97) or more (20 (0.79) or more)
C	When the SD card is used	-
	When the SD card is not used	50 (1.97) or more (20 (0.79) or more)
D	50 (1.97) or more (20 (0.79) or more)	50 (1.97) or more
E	100 (3.94) or more (20 (0.79) or more*1)	80 (3.15) or more (20 (0.79) or more*2)

\*1 80 (3.15) or more if a USB cable or a memory board is used.

\*2 80 (3.15) or more if an RS-232 cable or a USB cable is connected to the back side of the GOT.

**7.2 GT104□ and GT2104-R comparison**

	Used models	Recommended replacement models
	GT104□(GOT1000)	GT2104-R(GOT2000)
A	50 (1.97) or more (20 (0.79) or more)	50 (1.97) or more (20 (0.79) or more)
B	80 (3.15) or more (20 (0.79) or more)	50 (1.97) or more (20 (0.79) or more)
C	When the SD card is used	-
	When the SD card is not used	50 (1.97) or more (20 (0.79) or more)
D	50 (1.97) or more (20 (0.79) or more)	50 (1.97) or more
E	100 (3.94) or more (20 (0.79) or more*1)	80 (3.15) or more (20 (0.79) or more*2)

\*1 80 (3.15) or more if a USB cable or a memory board is used.

\*2 80 (3.15) or more if an RS-232 cable or a USB cable is connected to the back side of the GOT.

**7.3 GT1030 and GT2104-P comparison**

	Used models	Recommended replacement models
	GT1030(GOT1000)	GT2104-P(GOT2000)
A	50 (1.97) or more (20 (0.79) or more*1)	50 (1.97) or more (20 (0.79) or more)
B	50 (1.97) or more (20 (0.79) or more)	50 (1.97) or more (20 (0.79) or more)
C	When the SD card is used	-
	When the SD card is not used	50 (1.97) or more (20 (0.79) or more)
D	50 (1.97) or more	50 (1.97) or more
E	80 (3.15) or more (20 (0.79) or more*2)	80 (3.15) or more (20 (0.79) or more*3)

\*1 50 (1.97) or more if an RS-232/USB conversion adapter is used.

\*2 80 (3.15) or more if a personal computer connection cable is used or if an RS-232 interface for personal computer is used to connect multiple GOTs.

50 (1.97) or more if an RS-232 interface for personal computer is used when an RS-232/USB conversion adapter is used.

\*3 80 (3.15) or more if an RS-232 cable or a USB cable is connected to the back side of the GOT.

**7.4 GT1020 and GT2103-P comparison**

	Used models	Recommended replacement models
	GT1020(GOT1000)	GT2103-P(GOT2000)
A	50 (1.97) or more (20 (0.79) or more*2)	50 (1.97) or more (20 (0.79) or more)
B	50 (1.97) or more (20 (0.79) or more)	50 (1.97) or more (20 (0.79) or more)
C	When the SD card is used	-
	When the SD card is not used	50 (1.97) or more (20 (0.79) or more)
D	50 (1.97) or more	50 (1.97) or more
E	80 (3.15) or more (20 (0.79) or more*3)	80 (3.15) or more (20 (0.79) or more*1)

\*1 80 (3.15) or more if an RS-232 cable or a personal computer connection cable is used for GT2103-PMBDS.

\*2 50 (1.97) or more if an RS-232/USB conversion adapter is used for GT1020.

\*3 80 (3.15) or more if a personal computer connection cable is used or if an RS-232 interface for personal computer is used to connect multiple GOTs.

50 (1.97) or more if an RS-232 interface for personal computer is used when an RS-232/USB conversion adapter is used.

**8. Caution on replacing the project data**

To write the project data into the recommended replacement model, the software package described in "Compatible software package" in the list in Chapter 3 is required.

After conversion, always check the converted data before transferring it to the GOT.

The project data once converted to the one for GOT2000 cannot be converted to the project data for GOT1000. It is recommended to back up the project data before conversion.

**9. Others**

For replacing options (protective cover for oil) from the GT10 model to the GT21 model, refer to the following.

**■GT105□ and GT2105-Q comparison**

GOT	GT105□	GT2105-Q
Protective cover for oil	GT05-50PCO	←

**■GT104□ and GT2104-R comparison**

GOT	GT104□	GT2104-R
Protective cover for oil	GT10-40PCO	GT21-04RPCO

**■GT1030 and GT2104-P comparison**

GOT	GT1030	GT2104-P
Protective cover for oil	GT10-30PCO	←

**■GT1020 and GT2103-P comparison**

GOT	GT1020	GT2103-P
Protective cover for oil	GT10-20PCO	←

**REVISIONS**

Version	Print Date	Revision
-	July 2020	- First edition
A	December 2020	- Revised: Descriptions of "2. Recommended replacement models"