

Specifications

GT11 GT10

General specifications

Item	Specification	
Operating ambient temperature	0°C to 50°C*5	
Other than display	0°C to 55°C (horizontal installation), 0°C to 50°C (vertical installation)*5	
Storage ambient temperature	-20°C to 60°C	
Operating ambient humidity*1	10 to 90%RH, no condensation	
Storage ambient humidity*1	10 to 90%RH, no condensation	
Vibration resistance	Conforming to JIS B 3502 and IEC 61131-2	
	Under intermittent vibration	Frequency: 5 to 8.4Hz, Acceleration: 8.4 to 150Hz, Half amplitude: 3.5mm, Sweep count: 10 times each in X, Y and Z directions
	Under continuous vibration	Frequency: 5 to 8.4Hz, Acceleration: 8.4 to 150Hz, Half amplitude: 1.75mm, Sweep count: -
		Frequency: 5 to 8.4Hz, Acceleration: 4.9m/s ² , Half amplitude: -
Impact resistance	Conforming to JIS B 3502 and IEC 61131-2 (147m/s ² , 3 times each in X, Y and Z directions)	
Operating atmosphere	Free from oil mist, corrosive gases, flammable gases and excessive conductive dusts or direct sun beams (The same applies to unit storage).	
Operating altitude*2	2000m or less	
Installation location	In control panel*6	
Overvoltage category*3	II or lower	
Contamination level*4	2 or less	
Cooling method	Self-cooling	
Grounding	Type D grounding (100Ω or less). Connect to panel if unable to ground.*7	

*1: Water bulb temperature for STN display type must be 39°C or lower.
 *2: Do not operate or store the GOT unit in pressurized environments where the pressure exceeds 0m elevation atmospheric pressure, as this could result in abnormal operation.
 *3: Assuming that the device is connected at some point between a public power distribution network and local system equipment. Category II applies to devices that are supplied with power from fixed equipment. The surge withstand voltage is 2500V for devices with ratings up to 300V.
 *4: Index that indicates the level of foreign conductive matter in the operating environment of the device. Contamination level 2 denotes contamination by non-conductive matter only, though momentary conductivity may occur due to occasional condensation.
 *5: 0 to 40°C for GT115□HS
 *6: Excluding GT115□HS
 *7: The 5VDC type requires no grounding.
 Do not use or store the GOT under direct sun light or in an environment with excessively high temperature, dust, humidity or vibration.
 For inquiries relating to products which conform to UL, cUL, and CE directives and shipping directives, please contact your local sales office.

Performance specifications

Item	Specification								
	GT1155-QTBD	GT1155-QSBD	GT1150-QLBD	GT1155-QTBDQ	GT1155-QSBDQ	GT1150-QLBDQ	GT1155HS-QSBD	GT1150HS-QLBD	
Type	TFT color LCD	STN color LCD	STN monochrome (black/white) LCD	TFT color LCD	STN color LCD	STN monochrome (black/white) LCD	STN color LCD	STN monochrome (black/white) LCD	
Screen size	5.7"								
Resolution	QVGA: 320 × 240 [dots]								
Display size	115(W) × 86(H) [mm] (in horizontal display mode)			115(W) × 86(H) [mm] (in horizontal display mode)			115(W) × 86(H) [mm]		
No. of displayed characters	16-dot standard font: 20 chars. × 15 lines (2-byte) 12-dot standard font: 26 chars. × 20 lines (2-byte) (in horizontal display mode)								
Display colors	256 colors		Monochrome (black/white) 16 gray scale	256 colors		Monochrome (black/white) 16 gray scale	256 colors		Monochrome (black/white) 16 gray scale
View angle	Right/left: 70°, Up: 70°, Down: 50° (in horizontal display mode) • Right/left: 50°, Up: 50°, Down: 60° (Hardware versions A and B) (in horizontal display mode) • Right/left: 55°, Up: 65°, Down: 70° (Hardware version C or later) (in horizontal display mode)		Right/left: 45°, Up: 20°, Down: 40° (in horizontal display mode)	Right/left: 70°, Up: 70°, Down: 50° (in horizontal display mode)	Right/left: 55°, Up: 65°, Down: 70° (in horizontal display mode)	Right/left: 45°, Up: 20°, Down: 40° (in horizontal display mode)	Right/left: 45°, Up: 50°, Down: 60° (Hardware versions A and B) • Right/left: 55°, Up: 65°, Down: 70° (Hardware version C or later)	Right/left: 45°, Up: 20°, Down: 40°	
Contrast adjustment	16-step adjustment								
Intensity	400 [cd/m ²]	• 350 [cd/m ²] (Hardware versions A and B) • 380 [cd/m ²] (Hardware version C or later)	220 [cd/m ²]	400 [cd/m ²]	380 [cd/m ²]	220 [cd/m ²]	• 350 [cd/m ²] (Hardware versions A and B) • 380 [cd/m ²] (Hardware version C or later)	220 [cd/m ²]	
Intensity adjustment	8-step adjustment								
Life	Approx. 50,000 hours (operating ambient temperature: 25°C)								
Backlight	Cold-cathode fluorescent tube (not replaceable), with backlight OFF detection function. Backlight off time and screen save time can be set.								
Life*2	Approx. 75,000 hours or more	Approx. 54,000 hours or more	Approx. 75,000 hours or more	Approx. 54,000 hours or more	Approx. 75,000 hours or more	Approx. 54,000 hours or more	Approx. 75,000 hours or more	Approx. 54,000 hours or more	Approx. 75,000 hours or more
Touch panel	Matrix resistive type								
Type	300 keys/screen (matrix consisting of 15 lines × 20 columns)								
No. of touch keys	Min. 16 × 16 [dots] (per key)								
Key size	Max. 2 points								
No. of simultaneous touch points	1,000,000 times or more (operating force 0.98N or less)								
Life	3MB built-in flash memory (for saving project data and OS)								
C drive*3	100,000 times								
Life (No. of writings)	512KB built-in SRAM (battery backup)								
D drive	GT11-50BAT type lithium battery								
Battery	Clock data, alarm history, recipe data, time action set values								
Backed up data	Replacement guideline approx. 5 years (operating ambient temperature: 25°C)								
Life	1ch for QCPU (Q mode)/motion controller CPU (Q series) or 1ch for QnA/ACPU/motion controller CPU (A series) Application: For bus connection of PLC								
Bus	RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with PLCs Terminal resistance*5: OPEN/110Ω/330Ω (switching by terminal resistance transfer switch)								
RS-422/485	-								
Built-in interface	RS-422/232, 1ch (Select one when using.) Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Round type, 32-pin (male) Application: Communication with connected devices								
RS-422/232	-								
RS-232	Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with connected devices, connection to personal computer (project data read/write, OS installation, FA transparent function, etc.)								
USB	USB (full-speed 12Mbps), device 1ch Connector shape: Mini-B Application: Connection to personal computer (project data read/write, OS installation, FA transparent function)								
CF card	Compact flash slot, 1ch Connector shape: TYPE I Application: Data transfer, data storage, GOT startup FAT16 format: max. 2GB, FAT32 format: not usable								
Optional function board	Embedded in main unit								
Buzzer output	Single tone (tone length adjustable)								
Protective construction*4	Front: IP67f In panel: IP2X			Front: IP67f In panel: IP2X			IP65f (when external connection cable is connected)		
External dimensions (without USB port cover)	164(W) × 135(H) × 56(D) [mm]			167(W) × 135(H) × 65(D) [mm]			176(W) × 220(H) × 93(D) [mm]		
Panel cut dimensions	153(W) × 121(H) [mm]			153(W) × 121(H) [mm]			-		
Weight	0.7 [kg] (excl. mounting brackets)			0.9 [kg] (excl. mounting brackets)			1.0 [kg] (main unit only)		
Applicable software package	GT Works3 Version 1.54G or later								

Power supply specifications

Item	Specification												
	GT1155-QTBD	GT1155-QSBD	GT1155HS-QSBD	GT1150-QLBD	GT1150HS-QLBD	GT1155-QTBDQ	GT1155-QSBDQ	GT1150-QLBDQ	GT1150HS-QLBDQ	GT1055-QSBD	GT1050-QBBD	GT1045-QSBD	GT1040-QBBD
Input power supply voltage	24VDC (+10%, -15%), ripple voltage of 200mV or less												
Input frequency	-												
Input maximum apparent power	-												
Power consumption	9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)	11.16W or less (465mA/24VDC)	9.72W or less (405mA/24VDC)	7.92W or less (330mA/24VDC)	9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)	11.16W or less (465mA/24VDC)	9.72W or less (405mA/24VDC)	7.92W or less (330mA/24VDC)	9.84W or less (410mA/24VDC)	9.36W or less (390mA/24VDC)	3.6W or less (150mA/24VDC)
[With backlight off]	4.32W or less (180mA/24VDC)			5.04W or less (210mA/24VDC)			4.32W or less (180mA/24VDC)			2.9W or less (120mA/24VDC)			
Inrush current	15A or less (2ms, at max. load)			26A or less (4ms, at max. load)			15A or less (26.4V) 2ms			-			
Permissible instantaneous failure time	Within 5ms			Within 10ms			Within 5ms			-			
Noise resistance	Noise voltage 1000Vp-p, noise width 1μs by noise simulator with noise frequency 30 to 100Hz			Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz			Noise voltage 1000Vp-p, noise width 1μs by noise simulator with noise frequency 30 to 100Hz			-			
Withstand voltage	500VAC for 1 minute between power supply terminal and ground												
Insulation resistance	10MΩ or higher with an insulation resistance tester (500VDC between power supply terminal and ground)												
Applicable wire size	0.75 to 2 [mm ²]*1												
Clamp terminal	Clamp terminals for M3 screw RAV1.25-3, V2-N3A, FV2-N3A*1												
Tightening torque (terminal block's terminal screws)	0.5 to 0.8 [N·m]*1												

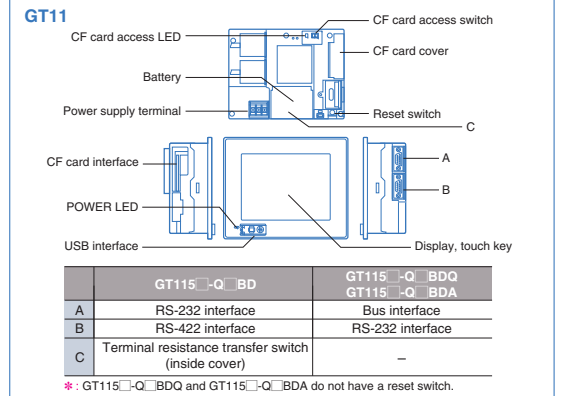
*1: Excluding GT115□HS

Performance specifications

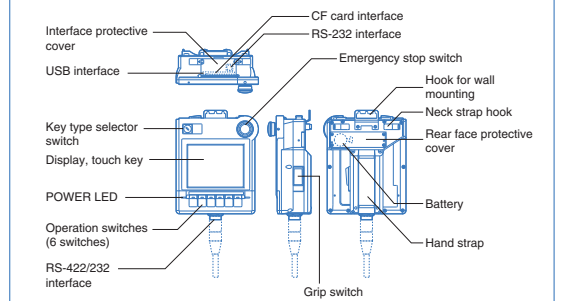
Item	Specification			
	GT1055-QSBD	GT1050-QBBD	GT1045-QSBD	GT1040-QBBD
Type	STN color LCD	STN monochrome (blue/white) LCD	STN color LCD	STN monochrome (blue/white) LCD
Screen size	5.7"			
Resolution	QVGA: 320 × 240 [dots]			
Display size	115(W) × 86(H) [mm] (in horizontal display mode)		96(W) × 72(H) [mm] (in horizontal display mode)	
No. of displayed characters	16-dot standard font: 20 chars. × 15 lines (2-byte), 12-dot standard font: 26 chars. × 20 lines (2-byte) (in horizontal display mode)			
Display colors	256 colors	Monochrome (blue/white) 16 gray scale	256 colors	Monochrome (blue/white) 16 gray scale
View angle	Right/left: 55°, Up: 65°, Down: 70° (in horizontal display mode)	Right/left: 45°, Up: 20°, Down: 40° (in horizontal display mode)	Right/left: 50°, Up: 40°, Down: 70° (in horizontal display mode)	Right/left: 45°, Up: 20°, Down: 40° (in horizontal display mode)
Contrast adjustment	16-step adjustment			
Intensity	380 [cd/m ²]	260 [cd/m ²]	150 [cd/m ²]	300 [cd/m ²]
Life	Approx. 50,000 hours (Time for display contrast reaches 20% at operating ambient temperature of 25°C)			
Backlight	Cold-cathode fluorescent tube (not replaceable) with backlight OFF detection function. Backlight off time and screen save time can be set.		LED (no need to replace) Backlight off time and screen save time can be set.	
Life*2	Approx. 75,000 hours or more	Approx. 54,000 hours or more	-	-
Touch panel	Matrix resistive type			
Type	300 keys/screen (matrix consisting of 15 lines × 20 columns)			
No. of touch keys	Min. 16 × 16 [dots] (per key)			
Key size	Max. 2 points			
No. of simultaneous touch points	1,000,000 times or more (operating force 0.98N or less)			
Life	3MB built-in flash memory for saving project data (3 MB or less) and OS			
User memory*3	100,000 times			
Life (No. of writings)	512KB built-in SRAM (battery backup)			
Battery	GT11-50BAT type lithium battery			
Backed up data	Clock data, alarm history, recipe data, time action set values			
Life	Replacement guideline approx. 5 years (operating ambient temperature: 25°C)			
RS-422/485	RS-422/485, 1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female) Application: Communication with PLCs Terminal resistance*5: OPEN/110Ω/330Ω (switched by terminal resistance transfer switch)			
Built-in interface	RS-232, 1ch (Select one when using.) Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: Round type, 32-pin (male) Application: Communication with connected devices			
RS-232	Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male) Application: Communication with personal computer (project data read/write, OS installation, FA transparent function, etc.)			
USB	USB (full-speed 12Mbps), device 1ch Connector shape: Mini-B Application: Communication with personal computer (project data read/write, OS installation, FA transparent function)			
Memory board	For installing memory board (GT10-50FMB) 1ch			
Buzzer output	Single tone (tone length adjustable)/none			
Protective construction*4	Conforming to IP67f (front panel)			
External dimensions	164(W) × 135(H) × 56(D) [mm]		139(W) × 112(H) × 41(D) [mm]	
Panel cut dimensions	153(W) × 121(H) [mm]		130(+1 -0)(W) × 103(+1 -0)(H) [mm]	
Weight (excl. mounting brackets)	0.7 [kg]		0.45 [kg]	
Applicable software package	GT Works3 Version 1.54G or later			

*1: On LCD panels, bright dots (permanently lit) and black dots (never lit) generally appear. Because the number of display elements that exist on an LCD panel is large, it is not possible to reduce appearance of the bright and black dots to zero. Flickering may occur depending on the display colors. Note that the existence of bright and black dots is a standard characteristic of LCD panels, and it does not mean that the products are defective or damaged. Displaying one single screen for a long time can lead to burn-in, causing afterimages or image irregularities that could not disappear. Use the screen saver that is effective to prevent burn-in.
 *2: Using the GOT screen save/backlight OFF functions prevents screen burn-in and extends the backlight life.
 *3: The memory is ROM that permits overwriting of new data without having to delete the existing data.
 *4: This does not guarantee protection in all users' environments. The specification is not applied when the interface protective cover and rear face protective cover are removed. The unit may not be used in an environment where it is exposed to splashing oil or chemicals for a long time or it is soaked with oil mist.
 *5: In the case of GOT multi-drop connection, set the terminal resistance transfer switch on the GOT main unit according to the connection configuration.

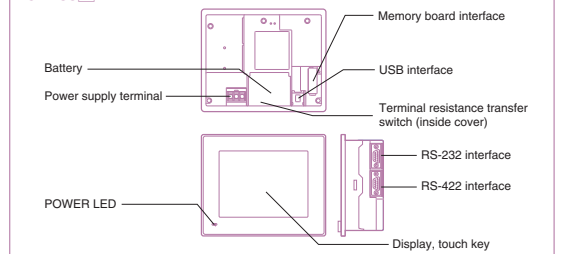
Component names



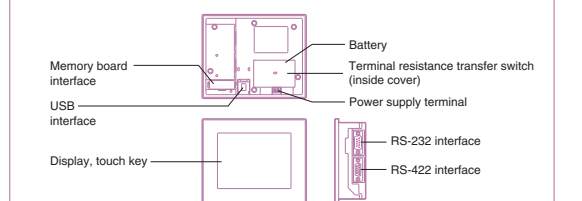
GT115□HS (Handy)



GT105□



GT104□



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For Initial Startup & Operations

For Maintenance Personnel

GT10

IQ Platform

MEI SEC Process Control

Specifications, External Dimensions

List of Connectable Models, etc.