

# GT27 Model

## GOT2000 Overview

### GT2715-X T B A S

Code	Screen Size	Code	Resolution	Code	Display Type	Code	Frame Color	Code	Power Supply	Code	Communication Interface
15	15"	WX	WXGA	T	TFT Color	B	Black	A	100-240VAC	None (*1)	Ethernet, RS-422/485, or RS-232, depending on model
12	12.1"	X	XGA	M	TFT monochrome	W	White	D	24VDC	S1 (*1)	RS-232 and RS-422/485 interfaces, or RS-422 interface only
12F	12.1" Open Frame	S	SVGA			S	Silver	L	5VDC	S2 (*1)	Two RS-232 interfaces
10	10.4" or 10.1"	V	VGA			N	No Frame			-GF (*2)	CC-Link IE Field Network communication unit set
10F	10.4" Open Frame	P	320 x 128 dots								
08	8.4"	R	480 x 272 dots								
08F	8.4" Open Frame	Q	320 x 240 dots								
07	7.0"	W	Wide screen WVGA 800 x 480 dots								
05	5.7"										
04	4.3"										
03	3.8"										

\*1: GT21 only.  
\*2: For GT27/GT25 only

GT27	Advanced model with multi-touch gesture functions
GT25	High performance, cost efficient, mid-range model (open frame available)
GT23	Unchallenged cost performance
GT21	Compact models with basic functions

### GOT2000 Series General Specifications

Model Number	GT27, GT25, GT23		GT21			
Operating Ambient Temp. (*1)	0 to 55°C (*2)		0 to 55°C (horizontal installation), 0 to 50°C (vertical installation)			
Storage Ambient Temperature	-20°C to 60°C					
Operating Ambient Humidity	10 to 90%RH, no condensation		10 to 90%RH, no condensation (*2)			
Storage Ambient Humidity	10 to 90%RH, no condensation		10 to 90%RH, no condensation (*2)			
Vibration Resistance	Conforming to JIS B 3502 and IEC 61131-2		Frequency	Acceleration	Half Amplitude	Sweep Count
		Under intermittent vibration	5 to 8.4Hz 8.4 to 150Hz	- 9.8m/s <sup>2</sup>	3.5mm -	10 times each in X, Y and Z directions
		Under continuous vibration	5 to 8.4Hz 8.4 to 150Hz	- 4.9m/s <sup>2</sup>	1.75mm -	
Impact Resistance	Compliant with JIS B 3502, IEC 61131-2 (147 m/s <sup>2</sup> (15G), 3 times each in X, Y and Z directions)					
Operating Atmosphere (*6)	No greasy fumes, corrosive gas, flammable gas, excessive conductive dust, and direct sunlight (as well as at storage)					
Operating Altitude (*3)	2000m (6562 ft) or less					
Installation Location	Inside control panel					
Overvoltage Category (*4)	II or less					
Pollution Degree (*5)	2 or less					
Cooling Method	Self-cooling					
Grounding	Grounding with a ground resistance of 100Ω or less. If impossible, connect the ground cable to the control panel.		Grounding with a ground resistance of 100Ω or less by using a ground cable that has a cross-sectional area of 0.14 to 1.5 mm <sup>2</sup> (single wire), 0.14 to 1.0 mm <sup>2</sup> (stranded wire), or 0.25 to 0.5 mm <sup>2</sup> (rod terminal with an insulation sleeve). If impossible, connect the ground cable to the control panel. (*7)			

- Notes:**
- The operating ambient temperature includes the temperature inside the enclosure of the control panel to which the GOT is installed.
  - (GT27, GT25) When any of the following units is mounted, the maximum operating ambient temperature must be 5 °C lower than the one described in the general specifications: multimedia unit (GT27-MMR-Z), MELSECNET/H communication unit (GT15-J71LP23-25, GT15-J71BR13), CC-Link communication unit (GT15-J61BT13)
    - (GT23, GT21) If the ambient temperature exceeds 40°C, the absolute humidity must not exceed 90% RH at 40 °C.
  - Do not use or store the GOT under a pressure higher than the atmospheric pressure at altitude 0 m. Doing so may cause a malfunction. Air purging by applying pressure to the control panel may create clearance between the surface sheet and the touch panel. This may cause the touch panel to be not sensitive enough or the sheet to come off.
  - This indicates the section of the power supply to which the equipment is assumed to be connected between the public electrical power distribution network and the machinery within the premises. Category II applies to equipment that is supplied with power from fixed facilities. The withstand surge voltage for the equipment with the rated voltage up to 300 V is 2500 V.
  - This indicates the occurrence rate of conductive material in an environment where a device is used. Pollution degree 2 indicates an environment where only non-conductive pollution occurs normally and a temporary conductivity caused by condensation shall be expected depending on the conditions.
  - (GT25, GT27 only) Some models have ANSI/ISA 12.12.01 approval for use in Class I, Division 2 (ANSI/ISA 12.12.01, C22.2 No.213-M1987) hazardous locations. For the details, please contact your local sales office.
  - 5 VDC type does not require grounding.

## GT27 Series

### GT27 Base Units

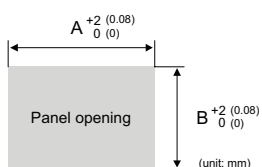
Category	Model Number	Screen Size	Resolution	Display Type	Frame Color	Power Supply	Stocked Item
GT2715	GT2715-XTBA	15"	XGA (1024 x 768)	TFT Color	Black	100-240VAC	S
	GT2715-XTBD					24VDC	S
GT2712	GT2712-STBA	12.1"	SVGA (800 x 600)		Black	100-240VAC	S
	GT2712-STBD					24VDC	S
	GT2712-STWA				White	100-240VAC	S
	GT2712-STWD					24VDC	S
GT2710	GT2710-STBA	10.4"	SVGA (800 x 600)		Black	100-240VAC	S
	GT2710-STBD		VGA (640 x 480)			24VDC	S
	GT2710-VTBA					100-240VAC	S
	GT2710-VTBD					24VDC	S
	GT2710-VTWA				White	100-240VAC	S
	GT2710-VTWD		24VDC			S	
GT2708	GT2708-STBA	8.4"	SVGA (800 x 600)	Black	100-240VAC	S	
	GT2708-STBD		VGA (640 x 480)		24VDC	S	
	GT2708-VTBA				100-240VAC	S	
	GT2708-VTBD				24VDC	S	
GT2705	GT2705-VTBD	5.7"			VGA (640 x 480)		24VDC

### GT27 GOT + CC-Link IE Field Network Communication Unit Sets

Category	Model Number	Screen Size	Resolution	Display Type	Frame Color	Power Supply	Stocked Item
GT2715	GT2715-XTBA-GF	15"	XGA (1024 x 768)	TFT Color 65536 colors	Black	100-240VAC	S
	GT2715-XTBD-GF					24VDC	S
GT2712	GT2712-STBA-GF	12.1"	SVGA (800 x 600)		Black	100-240VAC	S
	GT2712-STBD-GF					24VDC	S
	GT2712-STWA-GF				100-240VAC	S	
	GT2712-STWD-GF				White	100-240VAC	S
						24VDC	S
GT2710	GT2710-STBA-GF	10.4"	SVGA (800 x 600)		Black	100-240VAC	S
	GT2710-STBD-GF		24VDC			S	
	GT2710-VTBA-GF		VGA (640 x 480)			100-240VAC	S
						24VDC	S
	GT2710-VTWA-GF		White		100-240VAC	S	
	GT2710-VTWD-GF				24VDC	S	
GT2708	GT2708-STBA-GF	8.4"	SVGA (800 x 600)		Black	100-240VAC	S
	GT2708-STBD-GF		VGA (640 x 480)			24VDC	S
	GT2708-VTBA-GF					100-240VAC	S
	GT2708-VTBD-GF					24VDC	S
GT2705	GT2705-VTBD-GF	5.7"	VGA (640 x 480)			24VDC	S

### GT27 Power Supply Specifications

Model Number		GT2715-XBTA	GT2712-STBA GT2712-STWA	GT2710-STBA GT2710-VTBA GT2710-VTWA	GT2708-STBA GT2708-VTBA	GT2715-XTBD	GT2712-STBD GT2712-STWD	GT2710-STBD GT2710-VTBD GT2710-VTWD	GT2708-STBD GT2708-VTBD	GT2705-VTBD	
Input Power Supply Voltage		100 to 240VAC (+10%, -15%)					24VDC (+25%, -20%)				
Input Power Supply Frequency		50/60Hz ±5%								-	
Power Consumption	Maximum Load	51W or less	44W or less	41W or less	41W or less	48W or less	45W or less	42W or less	39W or less	30W or less	
	Stand Alone	25W	19W	17W	15W	23W	15W	15W	13W	7W	
	Stand Alone w/ Backlight Off	10W	10W	10W	10W	8W	8W	8W	8W	5W	
Inrush Current		40A or less (3ms, ambient temperature 25°C, maximum load)	60A or less (2ms, ambient temperature 25°C, maximum load)			5A or less (20ms, ambient temperature 25°C, maximum load)				69A or less (1 ms, ambient temperature: 25°C, under the maximum load)	
Permissible Instantaneous Failure Time		Within 20ms (100VAC or more)					Within 10ms				
Noise Resistance		Noise voltage 1500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz					Noise voltage 500Vp-p, noise width 1μs by noise simulator with noise frequency 25 to 60Hz				
Withstand Voltage		1500VAC for 1 minute between power supply terminal and ground					350VAC 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 [mm²]									
Clamp Terminal		Clamp terminals for M3 screw RAV1.25-3, V2-S3.3, V2-N3A, FV2-N3A									
Tightening Torque (Terminal Block's Terminal Screws)		0.5 to 0.8 [N·m]									



Screen Size	Model	A	B	Remarks
15"	GT2715	383.5 (15.10)	282.5 (11.12)	Same dimensions as GT1695, GT1595
12.1"	GT2712	302 (11.89)	228 (8.98)	Same dimensions as GT1685, GT1585, A985GOT
10.4"	GT2710	289 (11.38)	200 (7.87)	Same dimensions as GT167_M, GT157_M, A97_MGOT
8.4"	GT2708	227 (8.94)	176 (6.93)	Same dimensions as GT1665, GT1565
5.7"	GT2705	153 (6.02)	121 (4.76)	Same dimensions as GT1655, GT155_, GT145_, GT115_, GT105_, F940GOT

## GT27 Performance Specifications

Model Number		GT2715-STBA GT2715-STBD	GT2712-STBA GT2712-STBD	GT2712-STWA GT2712-STWD	GT2710-STBA GT2710-STBD	GT2710-VTBA GT2710-VTBD	GT2710-VTWA GT2710-VTWD	GT2708-STBA GT2708-STBD	GT2708-VTBA GT2708-VTBD	GT2705-VTBD
Display Section (*1, *2)	Type	TFT color LCD								
	Screen Size	15"	12.1"		10.4"			8.4"		5.7"
	Resolution (Dots)	1024 x 768 XGA	800 x 600 SVGA			640 x 480 VGA		800 x 600 SVGA	640 x 480 VGA	
	Display Size (W x H) mm	304.1 x 228.1	246.0 x 184.5		211.2 x 158.4			170.9 x 128.2		115.2 x 86.4
	Number of Characters	16-dot standard font: 64 chars. x 48 lines (2-byte) 12-dot standard font: 85 chars. x 64 lines (2-byte)	16-dot standard font: 50 chars. x 37 lines (2-byte) 12-dot standard font: 66 chars. x 50 lines (2-byte)			16-dot standard font: 40 chars. x 30 lines (2-byte) 12-dot standard font: 53 chars. x 40 lines (2-byte)		16-dot standard font: 50 chars. x 37 lines (2-byte) 12-dot standard font: 66 chars. x 50 lines (2-byte)	16-dot standard font: 40 chars. x 30 lines (2-byte) 12-dot standard font: 53 chars. x 40 lines (2-byte)	
	Display Colors	65536 colors								
	Intensity Adjustment	32-level adjustment								
Backlight	Type	LED (not replaceable)								
	Life	Approx. 60000 hours or more (Time for display intensity reaches 50% at ambient temperature of 25°C) (*4)								
Touch Panel (*3)	Type	Analog resistive film								
	Key Size (Dots)	Minimum 2 x 2 dots (per key) (*7)								
	Simultaneous Press	Maximum 2 points								
	Life	1 million times or more (operating force 0.98N or less)								
Panel Color		Black		White	Black		White	Black		
Human Sensor	Detection Distance (m)	1m			-					
	Detection Temperature	Temperature difference between human body and ambient air: 4°C or higher			-					
Memory	User Memory Capacity	Memory for storage (ROM): 57MB, Memory for operation (RAM): 128MB								Memory for storage (ROM): 32MB, Memory for operation (RAM): 80MB
	Life (No. of Writings)	100000 times								
Internal Clock Accuracy		±90 sec/month (ambient temperature 25°C)								
Battery	Type	GT11-50BAT lithium battery								
	Life	Approx. 5 years (ambient temperature 25°C)								
Built-in Interface	RS-232	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (male)								
	RS-422/485	1ch Transmission speed: 115200/57600/38400/19200/9600/4800bps Connector shape: D-sub 9-pin (female)								
	Ethernet	1ch Data transfer method: 10BASE-T/100BASE-TX Connector shape: RJ-45 (modular jack)								
	USB (Host)	2ch (front face/rear face)		1ch (rear face)	2ch (front face/rear face)		1ch (rear face)	2ch (front face/rear face)		
		Maximum transfer speed: High-Speed 480Mbps Connector shape: USB-A								
	USB (Device)	1ch (front face)		1ch (rear face)	1ch (front face)		1ch (rear face)	1ch (front face)		
		Maximum transfer speed: High-Speed 480Mbps Connector shape: USB Mini-B								
	SD Card	1ch SDHC compliant (maximum 32GB)								
	Extension Interface (*6)	For communication unit/option unit mounting								
Auxiliary Extension I/F	For option unit mounting								-	
Side Interface	For communication unit mounting									
Buzzer Output		Single tone (tone, tone length adjustable)								
Power LED		Emission color: 2 colors (blue, orange)								
Protective Construction		Front: IP67F (*5,*8) In control panel: IP2X								
External Dimensions (W x H x D) mm		397 x 300 x 60	316 x 246 x 52		303 x 218 x 52			241 x 194 x 52		167 x 139 x 60
Panel Cutout (W x H) mm		383.5 x 282.5	302 x 228		289 x 200			227 x 176		153 x 121
Weight (kg) Excludes Mounting Brackets		4.5	2.4		2.1			1.5		1.0
Applicable Software Package		GT Works3 Version1.112S or later	GT Works3 Version1.100E or later							GT Works3 Version1.130L or later

### Notes:

- As a characteristic of liquid crystal display panels, bright dots (always lit) and dark dots (never lit) may appear on the panel. Since liquid crystal display panels comprise a great number of display elements, the appearance of bright and dark dots cannot be reduced to zero. Individual differences in liquid crystal display panels may cause differences in color, uneven brightness and flickering. Note that these phenomena are characteristics of liquid crystal display panels and it does not mean the products are defective or damaged.
- Flickering may occur due to vibration, shock, or the display colors.
- When a stylus is used, the touch panel has a life of 100 thousand touches. The stylus must satisfy the following specifications: • Material: polyacetal resin • Tip radius: 0.8 mm or more
- To prevent the display section from burning in and lengthen the backlight life, enable the screen save function and turn off the backlight.
- To conform to IP67F, close the USB environmental protection cover by pushing the [PUSH] mark firmly. (To conform to IP2X, open the USB environmental protection cover.) Note that the structure does not guarantee protection in all users' environments. The GOT may not be used in certain environments where it is subjected to splashing oil or chemicals for a long period of time or soaked in oil mist.
- When using a GT2705 with multiple devices such as extension units, a barcode reader, and an RFID controller, the total amount of current must be within the maximum amount of current supplied by the GT2705. For the details, please refer to an appropriate GOT2000 Series manual.
- The minimum size of a key that can be arranged. To ensure safe use of the product, the following settings are recommended. • Key size: 16 x 16 dots or larger • Distance between keys: 16 dots or more
- The suffix "F" of IP67F is a symbol that indicates protection rate against oil. It is described in the Appendix of Japanese Industrial Standard JIS C 0920.