ST6000 Series (Wide)

ST-6700WA
Model: PFXST6700WAD
Model: PFXST6700WADE

ST-6600WA
Model: PFXST6600WAD
Model: PFXST6600WADE

ST-6500WA
Model: PFXST6500WAD
Model: PFXST6500WADE

ST-6400WA
Model: PFXST6400WAD
Model: PFXST6400WADE

ST-6200WA
Model: PFXST6200WAD
Model: PFXST6200WADE

■ Model Number Configuration

Display Module

PFXST6 * 00 W A D*
(1) (2) (3) (4) (5)

(1) Size		(2) Type		(3) Resolution		(4) Touch Panel		(5) Power Supply / available software and others	
7	15”	00	Reserved	T	TFT	A	Analog	D	DC / BLUE
6	12”			W	Wide TFT			DE	DC / GP-ProEX
5	10”								
4	7”								
3	5”								
2	4”								

■ Display Specifications

	ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Model No.	PFXST6700WAD (BLUE) PFXST6700WADE (GP-Pro EX)	PFXST6600WAD (BLUE) PFXST6600WADE (GP-Pro EX)	PFXST6500WAD (BLUE) PFXST6500WADE (GP-Pro EX)	PFXST6400WAD (BLUE) PFXST6400WADE (GP-Pro EX)	PFXST6200WAD (BLUE) PFXST6200WADE (GP-Pro EX)
Display Type	TFT Color LCD				
Display Size	15.6” wide	12.1” wide	10.1” wide	7.0” wide	4.3” wide
Resolution	1,366 x 768 pixels (FWXGA)	1,280 x 800 pixels (WXGA)	1,024 x 600 pixels (WSVGA)	800 x 480 pixels (WVGA)	480 x 272 pixels
Effective Display Area	344.23 x 193.54 mm (13.55 x 7.62 in)	261.12 x 163.2 mm (10.28 x 6.43 in)	222.72 x 125.28 mm (8.77 x 4.93 in)	154.08 x 85.92 mm (6.07 x 3.38 in)	95.04 x 53.86 mm (3.74 x 2.12 in)
Display Colors	16 million colors For details about display colors, refer to the manual of your screen editing software.				
Backlight	White LED (Not user replaceable. When replacement is required, contact customer support.)				
Backlight Service Life	50,000 hours or more (continuous operation at 25 °C [77 °F] before backlight brightness decreases to 25%)				
Brightness Control	16 levels (Adjusted with touch panel or software)				
Touch Panel Type	Resistive film (analog, single touch)				
Touch Panel Resolution	1,024 x 1,024				
Touch Panel lifetime	1,000,000 times or more				

■ Electrical Specifications

		ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Model No.		PFXST6700WAD (BLUE) PFXST6700WADE (GP-Pro EX)	PFXST6600WAD (BLUE) PFXST6600WADE (GP-Pro EX)	PFXST6500WAD (BLUE) PFXST6500WADE (GP-Pro EX)	PFXST6400WAD (BLUE) PFXST6400WADE (GP-Pro EX)	PFXST6200WAD (BLUE) PFXST6200WADE (GP-Pro EX)
Rated Input Voltage		24 Vdc				
Input Voltage Limits		19.2 to 28.8 Vdc				
Voltage Drop		10 ms or less			5 ms or less	2 ms or less
Power Consumption	Max	18.5 W	18.4 W	12.6 W	9 W	6.9 W
	When power is not supplied to external devices	15 W or less		9.6 W or less	5.5 W or less	3.6 W or less
	When screen turns off the backlight (Standby Mode)	5.4 W or less	5.9 W or less	4.6 W or less	3.6 W or less	2.8 W or less
	In-Rush Current	30 A or less				
Noise immunity		Noise voltage: 1,000 Vp-p, pulse duration: 1 µs, rise time: 1 ns (via noise simulator)				
Voltage Endurance		1,000 Vac, 20 mA for 1 minute (between charging and FG terminals)				
Insulation Resistance		500 Vdc, 10 MΩ or more				

ST6000 Series (Wide)

■ Environmental Specification

	ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Model No.	PFXST6700WAD (BLUE) PFXST6700WADE (GP-Pro EX)	PFXST6600WAD (BLUE) PFXST6600WADE (GP-Pro EX)	PFXST6500WAD (BLUE) PFXST6500WADE (GP-Pro EX)	PFXST6400WAD (BLUE) PFXST6400WADE (GP-Pro EX)	PFXST6200WAD (BLUE) PFXST6200WADE (GP-Pro EX)
Ambient air temperature	0 to 50 °C (32 to 122 °F)				
Storage Temperature	-20 to 60 °C (-4 to 140 °F)				
Ambient air and storage humidity	10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less)				
Dust	0.1 mg/m3 (10-7 oz/ft3) or less (non-conductive levels)				
Pollution Degree	For use in Pollution Degree 2 environment				
Corrosive Gases	Free of corrosive gases				
Air pressure (altitude range)	800 to 1,114 hPa (2,000 m [6,561 ft.] above sea level or less)				
Vibration Resistance	IEC/EN 61131-2 compliant 5 to 9 Hz single amplitude 3.5 mm [0.14 in.] 9 to 150 Hz fixed acceleration: 9.8 m/s2 X, Y, Z directions for 10 cycles (approx. 100 min.)				
Shock Resistance	IEC/EN 61131-2 compliant 147 m/s2, X, Y, Z directions for 3 times				
Electrical fast transient/burst	IEC 61000-4-4 2 kV: Power port (display unit) 1 kV: Signal ports				
Electrostatic Discharge Immunity	Contact Discharge Method: 6 kV Air Discharge Method: 8 kV (IEC/EN61000-4-2 Level 3)				

■ Interface Specification

	ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Model No.	PFXST6700WAD (BLUE) PFXST6700WADE (GP-Pro EX)	PFXST6600WAD (BLUE) PFXST6600WADE (GP-Pro EX)	PFXST6500WAD (BLUE) PFXST6500WADE (GP-Pro EX)	PFXST6400WAD (BLUE) PFXST6400WADE (GP-Pro EX)	PFXST6200WAD (BLUE) PFXST6200WADE (GP-Pro EX)
Serial (COM1)	Asynchronous Transmission: RS-232C, Data Length: 7 or 8 bits, Stop Bit: 1 or 2 bits, Parity: None, Even or Odd, Data Transmission Speed: 2,400 to 115,200 bps, Connector: D-Sub 9 (plug)				Asynchronous Transmission: RS-232C/422/485, Data Length: 7 or 8 bits, Stop Bit: 1 or 2 bits, Parity: None, Even or Odd, Data Transmission Speed: 2,400 to 115,200 bps, Connector: D-Sub 9 (plug)
Serial (COM2)	Asynchronous Transmission: RS-422/485, Data Length: 7 or 8 bits, Stop Bit: 1 or 2 bits, Parity: None, Even or Odd, Data Transmission Speed: 2,400 to 115,200 bps, Connector: D-Sub 9 (plug)				-
USB（Type A)	Conforms to USB 2.0 (Type A) x 1 Power supply voltage: 5 Vdc ±5 % Output Current: 500 mA/port Maximum transmission distance : 5 m [16.4 ft.]				
USB （micro-B）	Conforms to USB 2.0 (micro-B) x 1, Maximum transmission distance : 5 m [16.4 ft]				
Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX, Connector: Modular jack (RJ-45) x 2				IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX, Connector: Modular jack (RJ-45) x 1

■ Structural Specification

	ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Model No.	PFXST6700WAD (BLUE) PFXST6700WADE (GP-Pro EX)	PFXST6600WAD (BLUE) PFXST6600WADE (GP-Pro EX)	PFXST6500WAD (BLUE) PFXST6500WADE (GP-Pro EX)	PFXST6400WAD (BLUE) PFXST6400WADE (GP-Pro EX)	PFXST6200WAD (BLUE) PFXST6200WADE (GP-Pro EX)
Grounding	Functional grounding: Grounding resistance of 100 Ω, 2 mm2 (AWG 14) or thicker wire, or your country's applicable standard.				
Cooling Method	Natural air circulation				
Structure	IP65F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)				
External Dimensions	412 x 268 x 50 mm (16.22 x 10.55 x 1.97 in)	313 x 235 x 50 mm (12.32 x 9.25 x 1.97 in)	273 x 203 x 47 mm (10.75 x 7.99 x 1.85 in)	208 x 153 x 45 mm (8.19 x 6.02 x 1.77 in)	134.5 x 108.5 x 43 mm (5.3 x 4.27 x 1.69 in)
Panel Cut Dimensions	394 x 250 mm (15.51 x 9.84 in)*1 Panel thickness area: 1.6...5 mm (0.06...0.2 in)*2	295 x 217 mm (11.61 x 8.54 in)*1 Panel thickness area: 1.6...5 mm (0.06...0.2 in)*2	255 x 185 mm (10.04 x 7.28 in)*1 Panel thickness area: 1.6...5 mm (0.06...0.2 in)*2	190 x 135 mm (7.48 x 5.31 in)*1 Panel thickness area: 1.6 to 5 mm(0.06 to 0.2 in)*2	118.5 x 92.5 mm (4.67 x 3.64 in)*1 Panel thickness area*2: 1.6 to 5 mm (0.06 to 0.2 in) When using spring clips: Position 1: 1.5 to 4 mm (0.06 to 0.16 in) Position 2: 4 to 6 mm (0.16 to 0.24 in)
Weight	2.7 kg (5.95 lb) or less	1.8 kg (3.97 lb) or less	1.3 kg (2.87 lb) or less	0.8 kg (1.76 lb) or less	0.4 kg (0.88 lb) or less

*1 The front face of this product, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification. Even though this product's level of resistance is equivalent to these standards, oils that should have no effect on this product can possibly harm this product. This can occur in areas where either vaporized oils are present, or where low viscosity cutting oils are allowed to adhere to this product for long periods of time. If this product's front face protection sheet or cover glass peels off, these conditions can lead to the ingress of oil into this product and separate protection measures are suggested. Also, if non-approved oils are present, they may cause deformation or corrosion of the front panel's cover. Therefore, prior to installing this product, be sure to confirm the type of conditions that will be present in this product's operating environment. If the installation gasket is used for a long period of time, or if this product and its gasket are removed from the panel, the original level of protection cannot be kept. To maintain the original protection level, be sure to replace the installation gasket regularly.

*2 For dimensional tolerance, everything +1/-0 mm (+0.04/-0 in) and R in angle are below R3 (R0.12 in)

ST6000 Series (Wide)

■ Memory (Editor : BLUE)

		ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Model No.		PFXST6700WAD	PFXST6600WAD	PFXST6500WAD	PFXST6400WAD	PFXST6200WAD
Application Memory	Editor : BLUE	FLASH EPROM				
		128MB				
	Removable system	-				
Backup Memory	Editor : BLUE	NVRAM 500KB				
	Battery	Replaceable battery / Primary battery for clock data backup				

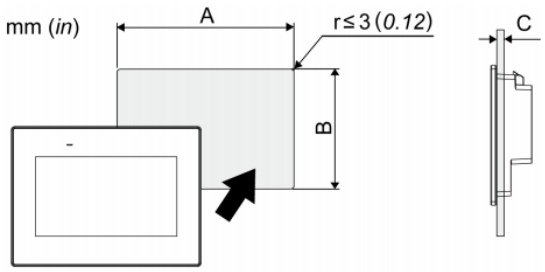
■ Memory (Editor : GP-Pro EX)

			ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Model No.			PFXST6700WADE	PFXST6600WADE	PFXST6500WADE	PFXST6400WADE	PFXST6200WADE
Application memory	Editor : GP-Pro EX	Media	FLASH EPROM				
		Screen area*1	64 MB				
		User font area	8 MB				
		Logic program area	132KB (Equivalent to 15,000 steps)				
		Free space	—				
	Removable system		No				
Backup memory	Editor : GP-Pro EX	Screen area	SRAM 320 KB				
		Variable area	SRAM 64 KB				
	Battery		Replaceable battery / Primary battery for clock data backup				

*1 Use the screen area when the user font area's capacity is exceeded – for example, when an image font or a picture font is used –.

■ Panel Cut Dimensions

Based on the panel cut dimensions, open a mount hole on the panel.



Model name	A	B	C
ST-6700WA	394 mm (+1/-0 mm) (15.51 in [+0.04/-0 in])	250 mm (+1/-0 mm) (9.84 in [+0.04/-0 in])	1.6…5mm (0.06..0.2 in) When installing ST-6200WA with spring clips: Position 1:1.5…4 mm (0.06..0.16 in) Position 2:4…6 mm (0.06..0.24 in) NOTE: For the position, refer to the installation Procedure (ST-6200WA) *(see manual page 65)*
ST-6600WA	295 mm (+1/-0 mm) (11.61 in [+0.04/-0 in])	217 mm (+1/-0 mm) (8.54 in [+0.04/-0 in])	
ST-6500WA	255 mm (+1/-0 mm) (10.04 in [+0.04/-0 in])	185 mm (+1/-0 mm) (7.28 in [+0.04/-0 in])	
ST-6400WA	190 mm (+1/-0 mm) (7.48 in [+0.04/-0 in])	135 mm (+1/-0 mm) (5.31 in [+0.04/-0 in])	
ST-6200WA	118.5 mm (+1/-0 mm) (4.67 in [+0.04/-0 in])	92.5 mm (+1/-0 mm) (3.64 in [+0.04/-0 in])	

ST6000 Series (4:3)

ST-6500T
Model: PFXST6500TADE

ST-6300T
Model: FXST6300TADE

■ Model Number Configuration

Display Module

PFXST6 * 00 T A DE
(1) (2) (3) (4) (5)

(1) Size		(2) Type		(3) Resolution		(4) Touch Panel		(5) Power Supply / available software and others	
7	15”	00	Reserved	T	TFT	A	Analog	D	DC / BLUE
6	12”			W	Wide TFT			DE	DC / GP-ProEX
5	10”								
4	7”								
3	5”								
2	4”								

■ Display Specifications

	ST-6500T	ST-6300T
Model No.	PFXST6500TADE (GP-Pro EX)	PFXST6300TADE (GP-Pro EX)
Display Type	TFT Color LCD	
Display Size	10.4"	5.7"
Resolution	800 x 600 pixels	640 x 480 pixels
Effective Display Area	211.2 x 158.4 mm (8.31 x 6.24 in)	115.2 x 86.4 mm (4.54 x 3.40 in)
Display Colors	16 million colors For details about display colors, refer to the manual of your screen editing software.	262,144 colors For details about display colors, refer to the manual of your screen editing software.
Backlight	White LED (Not user replaceable. When replacement is required, contact customer support.)	
Backlight Service Life	50,000 hours or more (continuous operation at 25 °C [77 °F] before backlight brightness decreases to 25%)	
Brightness Control	16 levels (Adjusted with touch panel or software)	
Touch Panel Type	Resistive film (analog, single touch)	
Touch Panel Resolution	1,024 x 1,024	
Touch Panel lifetime	1,000,000 times or more	

■ Electrical Specifications

		ST-6500T	ST-6300T
Model No.		PFXST6500TADE (GP-Pro EX)	PFXST6300TADE (GP-Pro EX)
Rated Input Voltage		24 Vdc	
Input Voltage Limits		19.2 to 28.8 Vdc	
Voltage Drop		10 ms or less	5 ms or less
Power Consumption	Max	10.56 W	8.9 W
	When power is not supplied to external devices	7.51 W or less	5.71 W or less
	When screen turns off the backlight (Standby Mode)	4.56 W or less	3.26 W or less
	In-Rush Current	30 A or less	
Noise immunity		Noise voltage: 1,000 Vp-p, pulse duration: 1 μs, rise time: 1 ns (via noise simulator)	
Voltage Endurance		1,000 Vac, 20 mA for 1 minute (between charging and FG terminals)	
Insulation Resistance		500 Vdc, 10 MΩ or more	

ST6000 Series (4:3)

■ Environmental Specification

	ST-6500T	ST-6300T
Model No.	PFXST6500TADE (GP-Pro EX)	PFXST6300TADE (GP-Pro EX)
Ambient air temperature	0 to 50 °C (32 to 122 °F)	
Storage Temperature	-20 to 60 °C (-4 to 140 °F)	
Ambient air and storage humidity	10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less)	
Dust	0.1 mg/m3 (10-7 oz/ft3) or less (non-conductive levels)	
Pollution Degree	For use in Pollution Degree 2 environment	
Corrosive Gases	Free of corrosive gases	
Air pressure (altitude range)	800 to 1,114 hPa (2,000 m [6,561 ft.] above sea level or less)	
Vibration Resistance	IEC/EN 61131-2 compliant 5 to 9 Hz single amplitude 3.5 mm [0.14 in.] 9 to 150 Hz fixed acceleration: 9.8 m/s2 X, Y, Z directions for 10 cycles (approx. 100 min.)	
Shock Resistance	IEC/EN 61131-2 compliant 147 m/s2, X, Y, Z directions for 3 times	
Electrical fast transient/burst	IEC 61000-4-4 2 kV: Power port (display unit) 1 kV: Signal ports	
Electrostatic Discharge Immunity	Contact Discharge Method: 6 kV Air Discharge Method: 8 kV (IEC/EN61000-4-2 Level 3)	

■ Interface Specification

	ST-6500T	ST-6300T
Model No.	PFXST6500TADE (GP-Pro EX)	PFXST6300TADE (GP-Pro EX)
Serial (COM1)	Asynchronous Transmission: RS-232C, Data Length: 7 or 8 bits, Stop Bit: 1 or 2 bits, Parity: None, Even or Odd, Data Transmission Speed: 2,400 to 115,200 bps, Connector: D-Sub 9 (plug)	
Serial (COM2)	Asynchronous Transmission: RS-422/485, Data Length: 7 or 8 bits, Stop Bit: 1 or 2 bits, Parity: None, Even or Odd, Data Transmission Speed: 2,400 to 115,200 bps, Connector: D-Sub 9 (plug)	
USB（Type A)	Conforms to USB 2.0 (Type A) x 1 Power supply voltage: 5 Vdc ±5 % Output Current: 500 mA/port Maximum transmission distance : 5 m [16.4 ft.]	
USB （micro-B）	Conforms to USB 2.0 (micro-B) x 1, Maximum transmission distance : 5 m [16.4 ft]	
Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX, Connector: Modular jack (RJ-45) x 1	
SD card	up to 32 GB	-

■ Structural Specification

	ST-6500T	ST-6300T
Model No.	PFXST6500TADE (GP-Pro EX)	PFXST6300TADE (GP-Pro EX)
Grounding	Functional grounding: Grounding resistance of 100 Ω, 2 mm2 (AWG 14) or thicker wire, or your country's applicable standard.	
Cooling Method	Natural air circulation	
Structure	IP65F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)	
External Dimensions	315 x 241 x 55.3 mm (12.4 x 9.49 x 2.18 in)	169.5 x 137 x 58 mm (6.67 x 5.39 x 2.28 in)
Panel Cut Dimensions	301.5 x 227.5 mm (11.87 x 8.96 in) Panel thickness area: 1.6...5 mm (0.06...0.2 in) *1	156 x 123.5 mm (6.14 x 4.86 in) Panel thickness area: 1.6...5 mm (0.06...0.2 in) *1
Weight	1.8 kg (3.97 lb) or less	0.8 kg (1.76 lb) or less

*1 Even if the installation wall thickness is within the recommended range for the Panel Cut Dimensions, depending on the wall's material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

ST6000 Series (4:3)

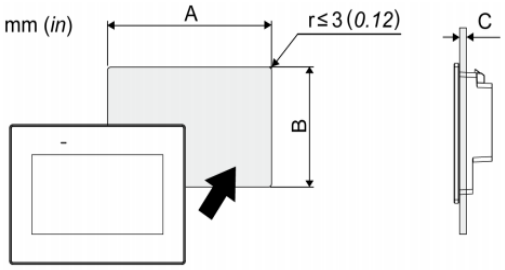
■ Memory (Editor : GP-Pro EX)

			ST-6500T	ST-6300T
Model No.			PFXST6500TADE (GP-Pro EX)	PFXST6300TADE (GP-Pro EX)
Application memory	Editor : GP-Pro EX	Media	FLASH EPROM	
		Screen area*1	64 MB	
		User font area	8 MB	
		Logic program area	132KB (Equivalent to 15,000 steps)	
		Free space	—	
	Removable system		No	
Backup memory	Editor : GP-Pro EX	Screen area	SRAM 320 KB	
		Variable area	SRAM 64 KB	
	Battery		Replaceable battery / Primary battery for clock data backup	

*1 Use the screen area when the user font area's capacity is exceeded – for example, when an image font or a picture font is used –.

■ Panel Cut Dimensions

Based on the panel cut dimensions, open a mount hole on the panel.

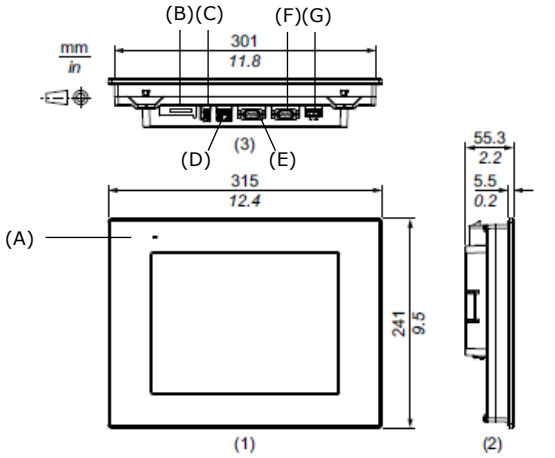


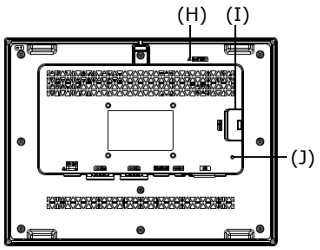
Model name	A	B	C
ST-6500T	301.5 mm (+1/-0 mm) (11.87 in [+0.04/-0 in])	250 mm (+1/-0 mm) (9.84 in [+0.04/-0 in])	1.6…5mm (0.06..0.2 in) When installing ST-6200WA with spring clips: Position 1:1.5…4 mm (0.06..0.16 in) Position 2:4…6 mm (0.06..0.24 in)
ST-6300T	156 mm (+1/-0 mm) (6.14 in [+0.04/-0 in])	227.5 mm (+1/-0 mm) (8.96 in [+0.04/-0 in])	

ST6000 Series (4:3)

■ External Dimensions / Parts Identification

ST-6500T

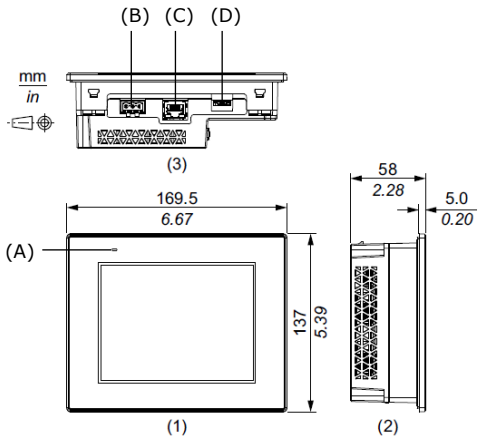


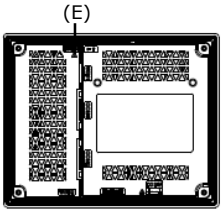


A:Status LED
B: SD card slot
C: USB (Type A) interface
D: Ethernet interface
E: Serial interface (RS-422/485) (COM2)
F: Serial interface (RS-232C) (COM1)
G: Power plug connector
H: Safety alert symbol*1
I: USB (micro-B) interface
L:SD card status LED

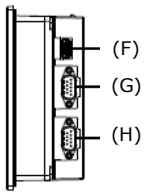
1 Front
2 Left
3 Bottom

ST-6300T





A: Status LED
B: Power plug connector
C: Ethernet interface
D: USB (micro-B) interface
E: Safety alert symbol*1
F: USB (Type A) interface
G: Serial interface (RS-232C) (COM1)
H: Serial interface (RS-422/485) (COM2)

1 Front
2 Left
3 Bottom

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