ST6000 Series

ST-6700WA
Model: PFXST6700WAD

ST-6600WA
Model: PFXST6600WAD

ST-6500WA
Model: PFXST6500WAD

ST-6400WA
Model: PFXST6400WAD

ST-6200WA
Model: PFXST6200WAD

■ Model Number Configuration

Display Module

$$PFXST6 \underset{(1)}{*} \underset{(2)}{*} \underset{(3)}{*} \underset{(4)}{*} \underset{(5)}{D}$$

(1) Size		(2) Wireless LAN		(3) Resolution		(4) Touch Panel		(5) Power Supply	
7	15"	00	Reserved	W	Wide TFT	A	Analog	D	DC
6	12"								
5	10"								
4	7"								
2	4"								

■ Display Specifications

	ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
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	222.72 x 125.28 mm (8.77 x 4.93 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
Rated Input Voltage		24 Vdc				
Input Voltage Limits		19.2 to 28.8 Vdc				
Voltage Drop		5 ms or less				2 ms or less
Power Consumption	Max	9 W				6.9 W
	When power is not supplied to devices via front USB	5.5 W or less				3.6 W or less
	When screen turns off the backlight (Standby Mode)	3.6 W or less				2.8 W or less
In-Rush Current		30 A or less				
Voltage Endurance		1,000 Vac, 20 mA for 1 minute (between charging and FG terminals)				
Insulation Resistance		500 Vdc, 10 MΩ or more				

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■ Environmental Specification

	ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Surrounding Air Temperature	0 to 50 °C (32 to 122 °F)				
Storage Temperature	-20 to 60 °C (-4 to 140 °F)				
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
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 (COM1)	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 or less Communication distance: 5 m [16.4 ft.] or less				
USB （mini B)	USB 2.0 (micro-B) x 1, Communication 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
Grounding	Functional grounding: Grounding resistance of 100 Ω, 2 mm2 (AWG 14) or thicker wire, or your country's applicable standard (same for FG and SG terminals).				
Cooling Method	Natural air circulation				
Structure	IP65F, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)*1				
External Dimensions	134.5 x 108.5 x 43 mm (5.3 x 4.27 x 1.69 in)	208 x 153 x 45 mm (8.19 x 6.02 x 1.77 in)	273 x 203 x 47 mm (10.75 x 7.99 x 1.85 in)	313 x 235 x 50 mm (12.32 x 9.25 x 1.97 in)	412 x 268 x 50 mm (16.22 x 10.55 x 1.97 in)
Panel Cut Dimensions	394 x 250 mm (15.51 x 9.84 in) Panel thickness area: 1.6...5 mm (0.06...0.2 in)*2	295 x 217 mm (11.61 x 8.54 in) Panel thickness area: 1.6...5 mm (0.06...0.2 in)*2	255 x 185 mm (10.04 x 7.28 in) Panel thickness area: 1.6...5 mm (0.06...0.2 in)*2	190 x 135 mm (7.48 x 5.31 in) 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) Panel thickness area: 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)*2
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 the unit, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification. Even though the unit's level of resistance is equivalent to these standards, oils that should have no effect on the unit can possibly harm the unit. This can occur in areas where either vaporized oils are present, or where low viscosity cutting oils are allowed to adhere to the unit for long periods of time. If the unit's front face protection sheet becomes peeled off, these conditions can lead to the ingress of oil into the unit and separate protection measures are suggested. Also, if non-approved oils are present, it may cause deformation or corrosion of the front panel's plastic cover. Therefore, prior to installing the unit, be sure to confirm the type of conditions that will be present in the unit's operating environment. If the installation gasket is used for a long period of time, or if the unit and its gasket are removed from the panel, the original level of the protection cannot be guaranteed. 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.]. Even if the installation wall thickness is within the recommended range for the "Panel Cut Dimensions", depending on wall's material, size, and installation location of GP unit and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.
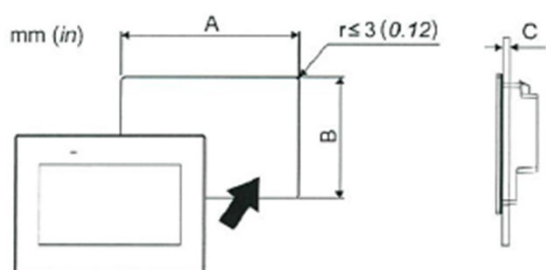
ST6000 Series

■ Memory

			ST-6700WA	ST-6600WA	ST-6500WA	ST-6400WA	ST-6200WA
Application Memory	Editor : BLUE	Media	FLASH EPROM				
		Screen area	128MB				
		Logic program area	128MB				
		Free space	-				
	Removable system		-				
Backup Memory	Editor : BLUE	Screen area	NVRAM 500KB				
		Variable area	NVRAM 500KB				
	Battery		Replaceable battery / Primary battery for clock data backup				

■ Panel Cut Dimensions

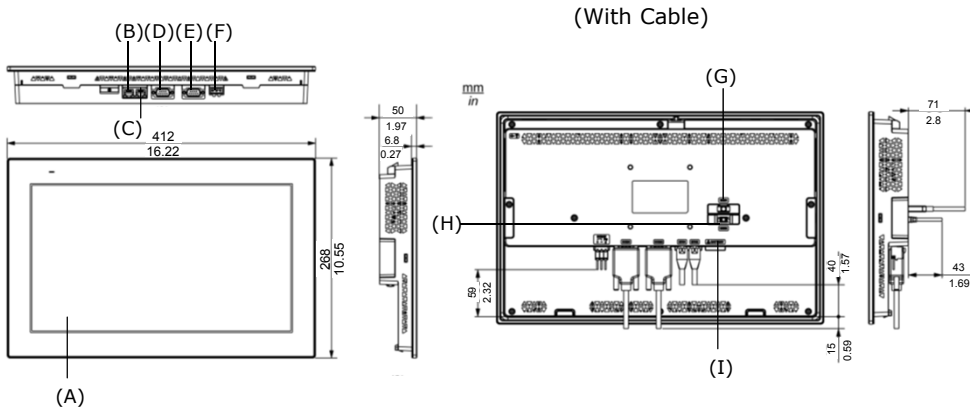Based on the panel cut dimensions, open a mount hole on the panel.

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)
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

■ External Dimensions / Parts Identification

ST-6700WA

mm [in.]

(With Cable)

(B)(D)(E)(F)

(C) 412
16.22

(G)

(H)

268
10.55

50
1.97
6.8
0.27

mm
in

59
2.32

40
1.57

15
0.59

71
2.8

43
1.69

(A)
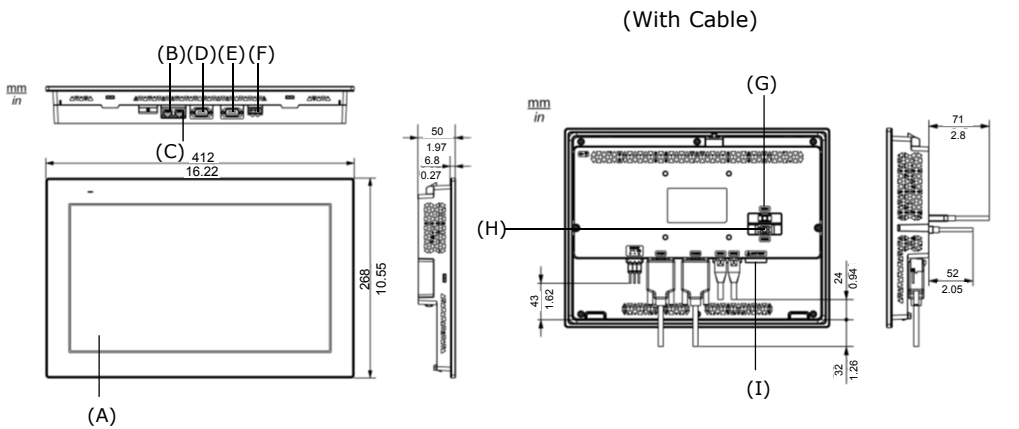
(I)

A:Status LED
B:Ethemet interface (ETH2)
C:Ethemet interface (ETH1)
D:Serial interface (RS-422/485)(COM2)
E:Serial interface (RS-232C)(COM1)
F:Power plug connector
G:USB (Type A) interface
H:USB (Type A) interface
 I:Safety alert symbol

ST-6600WA

(With Cable)

(B)(D)(E)(F)

mm
in

(C) 412
16.22

(G)

(H)

268
10.55

50
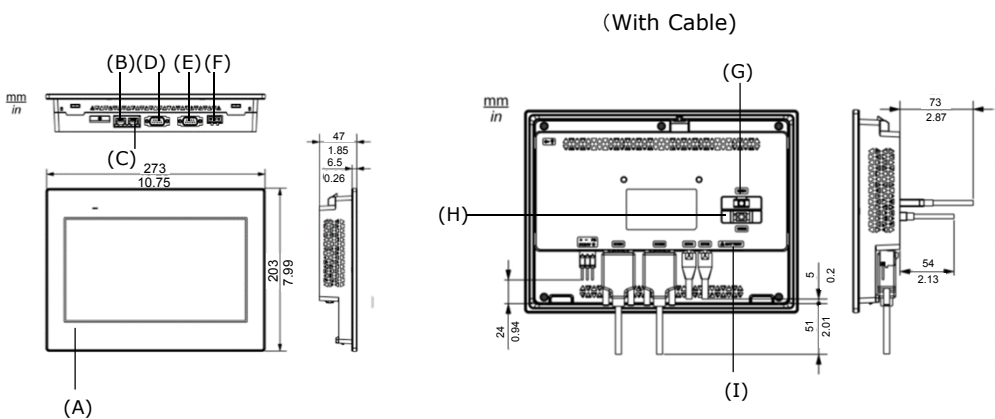1.97
6.8
0.27

mm
in

43
1.62

24
0.94

32
1.26

71
2.8

52
2.05

(A)

(I)

A:Status LED
B:Ethemet interface (ETH2)
C:Ethemet interface (ETH1)
D:Serial interface (RS-422/485)(COM2)
E:Serial interface (RS-232C)(COM1)
F:Power plug connector
G:USB (Type A) interface
H:USB (Type A) interface
 I:Safety alert symbol

ST-6500WA

（With Cable)

(B)(D) (E)(F)

mm
in

(C) 273
10.75

(G)

(H)

203
7.99

47
1.85
6.5
0.26

mm
in

24
0.94

51
2.01

5
0.2

73
2.87

54
2.13

(A)

(I)

A:Status LED
B:Ethemet interface (ETH2)
C:Ethemet interface (ETH1)
D:Serial interface (RS-422/485)(COM2)
E:Serial interface (RS-232C)(COM1)
F:Power plug connector
G:USB (Type A) interface
H:USB (Type A) interface
 I:Safety alert symbol

ST6000 Series

■ External Dimensions / Parts Identification

ST-6400WA

(With Cable)
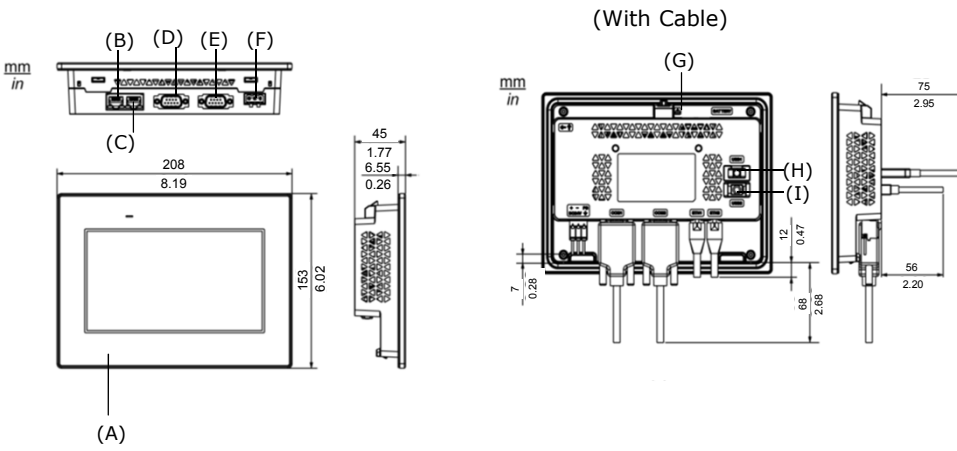
A: Status LED
B: Ethemet interface (ETH2)
C: Ethemet interface (ETH1)
D: Serial interface (RS-422/485)(COM2)
E: Serial interface (RS-232C)(COM1)
F: Power plug connector
G: Safety alert symbol
H: USB (Type A) interface
I : USB (micro-B) interface

ST-6200WA

(With Cable)

A: Status LED
B: Ethemet interface (ETH1)
C: Serial interface (RS-232C/422/485)(COM1)
D: Power plug connector
E: Safety alert symbol
232C)(COM1)
F: USB (Type A) interface
G: USB (micro-B) interface