

# STM6000 Series



**STM-6400WA**  
Model: PFXSTM6400WAD



**STM-6200WA**  
Model: PFXSTM6200WAD

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### Model Number Configuration

#### Display Module

**PFXSTM6 \* \* \* \* \* D**  
(1) (2) (3) (4) (5)

| (1) Size | (2) Type    | (3) Resolution | (4) Touch Panel | (5) Power Supply |
|----------|-------------|----------------|-----------------|------------------|
| 4 7"     | 00 Reserved | W Wide TFT     | A Analog        | D DC             |
| 2 4"     |             |                |                 |                  |

### Display Specifications

|                        | STM-6400WA  | STM-6200WA                           |
|------------------------|---|--------------------------------------|
| Display Type           | TFT Color LCD   |                                      |
| Display Size           | 7.0" wide   | 4.3" wide                            |
| Resolution             | 800 x 480 pixels (WVGA)   | 480 x 272 pixels                     |
| Effective Display Area | 154.08 x 85.92 mm<br>(6.07 x 3.38 in)   | 95.04 x 53.86 mm<br>(3.74 x 2.12 in) |
| Display Colors         | 16 million colors<br>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 (Rear module)

|                       | STM-6400WA   | STM-6200WA |
|-----------------------|--|------------|
| Rated Input Voltage   | 24 Vdc   |            |
| Input Voltage Limits  | 19.2...28.8 Vdc  |            |
| Voltage Drop          | 5 ms or less   |            |
| Power Consumption     | Max  | 6.8 W      |
|                       | When power is not supplied to external devices   | 3.5 W      |
| In-rush current       | 30 A or less   |            |
| Noise immunity        | Noise voltage: 1,000 Vp-p<br>Pulse duration: 1 µs<br>Rise time: 1 ns (via noise simulator) |            |
| Voltage Endurance     | 1,000 Vac for 1 minute (between power terminal and FG terminal)                            |            |
| Insulation Resistance | 500 Vdc, 10 MΩ or more (between power terminal and FG terminals)                           |            |

### Electrical Specifications (Display module)

|                   | STM-6400WA                                     | STM-6200WA |
|-------------------|--|------------|
| Power Consumption | Max  | 3.6 W      |
|                   | When power is not supplied to external devices | 1.3 W      |
|                   |  | 1.0 W      |
|                   |  | 0.6 W      |

#### NOTE:

The power consumption for the combined unit of the rear module and the display module equals the sum of power consumption of the two modules.

## ■ Environmental Specification

|                                  | STM-6400WA  | STM-6200WA |
|----------------------------------|---|------------|
| 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<br>5 to 9 Hz single amplitude 3.5 mm [0.14 in.]<br>9 to 150 Hz fixed acceleration: 9.8 m/s <sup>2</sup><br>X, Y, Z directions for 10 cycles (approx. 100 min.) |            |
| Shock Resistance                 | IEC/EN 61131-2 compliant 147 m/s <sup>2</sup> , X, Y, Z directions for 3 times  |            |
| Electrical fast transient/burst  | IEC 61000-4-4<br>2 kV: Power port (display unit)<br>1 kV: Signal ports  |            |
| Electrostatic Discharge Immunity | Contact Discharge Method: 6 kV<br>Air Discharge Method: 8 kV<br>(IEC/EN61000-4-2 Level 3)   |            |

## ■ Interface Specification

|               | STM-6400WA   | STM-6200WA |
|---------------|--|------------|
| Serial (COM1) | 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) |            |
| USB (Type A)  | Conforms to USB 2.0 (Type A) x 1<br>Power supply voltage: 5 Vdc ±5 %<br>Output Current: 500 mA/port<br>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  |            |

## ■ Structural Specification (Rear Module)

|                                 | STM-6400WA   | STM-6200WA |
|---------------------------------|--|------------|
| Grounding                       | Functional grounding: Grounding resistance of 100 Ω or less, 2 mm <sup>2</sup> (AWG 14) or thicker wire, or your country's applicable standard (SG and FG are connected inside the product). |            |
| Cooling method                  | Natural air circulation  |            |
| Structure                       | IP20   |            |
| External dimensions (W x H x D) | 145.6 x 108.23 x 41.4 mm (5.73 x 4.26 x 1.63 in) (excluding protrusions)   |            |
| Weight                          | 0.27 kg (0.6 lb) or less   |            |

### NOTE:

#### EQUIPMENT DAMAGE

- Store this product in areas where temperatures are within the product's specifications.
- Do not restrict or block the product's ventilation slots.

Failure to follow these instructions can result in equipment damage.

## ■ Structural Specification (Display Module)

|                                 | STM-6400WA   | STM-6200WA  |
|---------------------------------|--|---|
| Cooling method                  | Natural air circulation  |   |
| Structure *1                    | IP65F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 12, Type 13        |   |
| External dimensions (W x H x D) | 201.2 x 137.2 x 17.1 mm<br>(7.92 x 5.4 x 0.67 in)<br>(excluding protrusions) | 140.4 x 101.1 x 13.9 mm<br>(5.53 x 3.98 x 0.55 in)<br>(excluding protrusions) |
| Panel cut dimensions            | Diameter 22.5 mm (0.88 in)   |   |
| Weight                          | 0.49 kg (1.08 lb) or less  | 0.22 kg (0.49 lb) or less   |

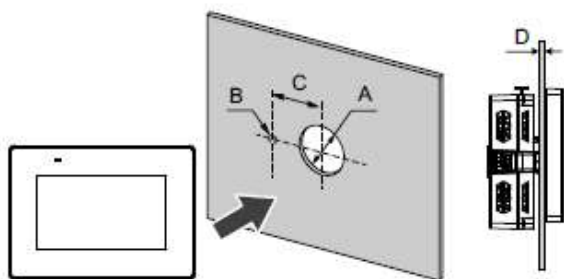
\*1 The front face of this product, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification. Even though this product's level of resistance is equivalent to these standards, oils that should have no effect on this product can possibly harm this 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 peels off, these conditions can lead to the ingress of oil into this product and separate protection measures are suggested. Also, if nonapproved 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

## ■ Memory

|                    |                  | STM-6400WA   | STM-6200WA |
|--------------------|------------------|--|------------|
| Application Memory | Editor : BLUE    | FLASH EPROM  |            |
|                    | Removable system | 128MB  |            |
| Backup Memory      | Editor : BLUE    | NVRAM 500KB  |            |
|                    | Battery          | Unreplaceable battery by the customer/ Primary battery for clock data backup |            |

## ■ Panel Cut Dimensions

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



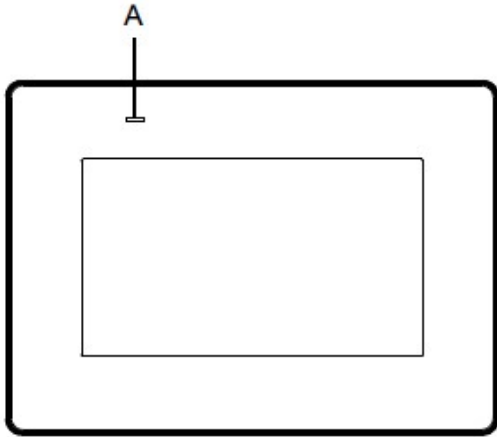
| A   | B   | C  |
|---|---|--|
| 22.5 mm (+0/-0.3 mm)<br>(0.88 in [+0/-0.01 in]) | 4.0 mm (+0/-0.2 mm)<br>(0.15 in [+0/-0.007 in]) | 30.0 mm (+0/-0.2 mm)<br>(1.18 in [+0/-0.007 in]) |

Panel thickness recommended range:

| Panel material                                 | Thickness range (D)             |
|--|---------------------------------|
| Steel  | 1.5... 6.0 mm (0.06... 0.23 in) |
| Glass fiber reinforced plastics (minimum GF30) | 3.0... 6.0 mm (0.12... 0.23 in) |

## ■ Parts Identification

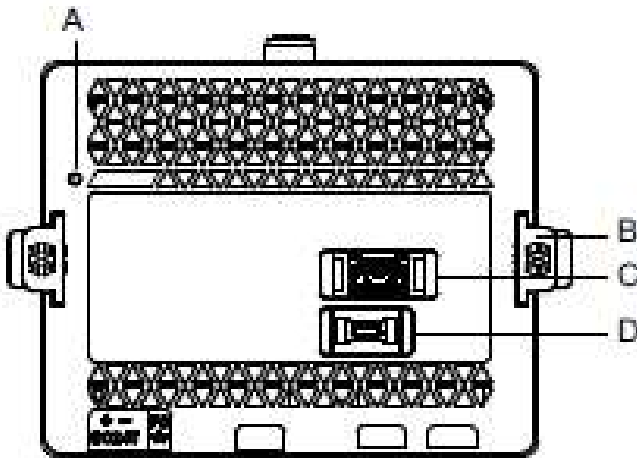
### Parts Identification (Display Module)



Front

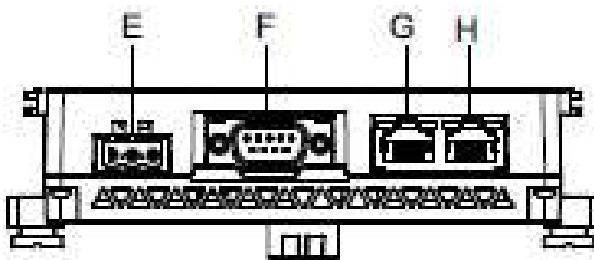
A. Status LED

### Parts Identification (Rear Module)



Front

A. Status LED  
B. Bumper  
C. USB (Type A) interface  
D. USB (micro-B) interface  
E. Power plug connector  
F. Serial interface (COM1)  
G. Ethernet interface (ETH1)  
H. Ethernet interface (ETH2)

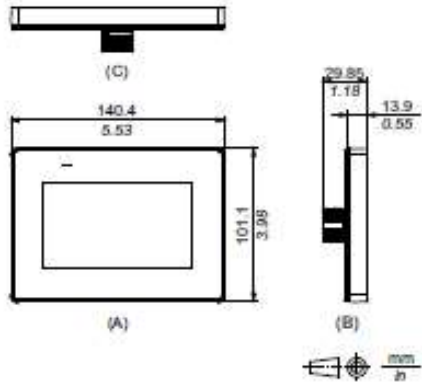


Bottom

## ■ Display Module Dimensions

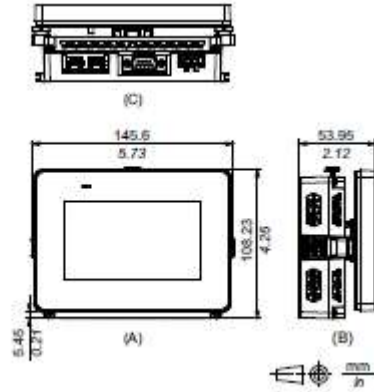
### STM-6200WA

#### Display Module Dimensions



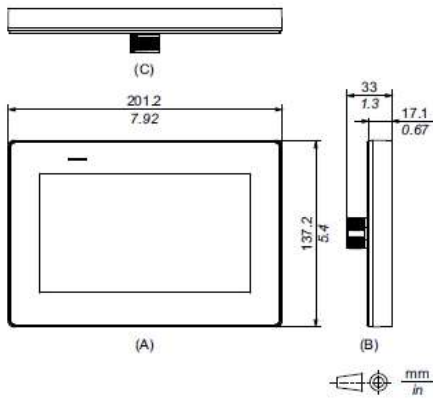
- A. Front
- B. Left
- C. Bottom

#### Dimensions When Rear Module Attached to Display Module



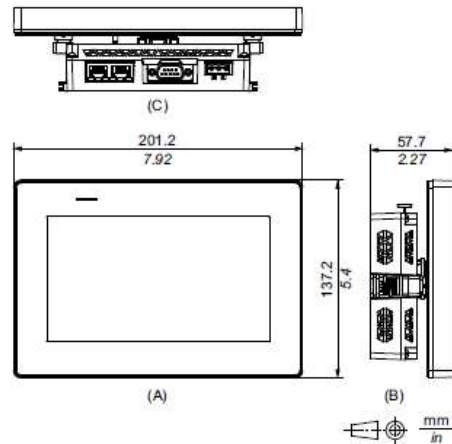
### STM-6400WA

#### Display Module Dimensions

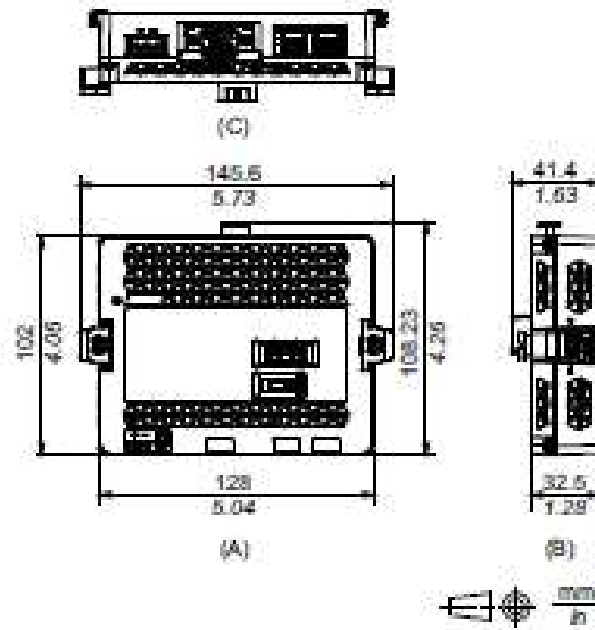


- A. Front
- B. Left
- C. Bottom

#### Dimensions When Rear Module Attached to Display Module

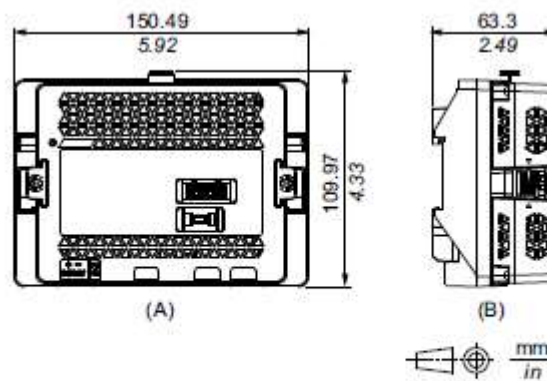


## ■ Rear Module Dimensions



- A. Front
- B. Right
- C. Bottom

## Dimensions When Rear Module Attached to Installation Adapter



- A. Front
- B. Right