

# GP6000 Series

## Standard Model

## Hardware Guide

GP6000-STD-MM01-EN.02

05/2026

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This document is not intended as a substitute for a detailed study or operational and site-specific development or schematic plan. It is not to be used for determining suitability or reliability of the products/solutions for specific user applications. It is the duty of any such user to perform or have any professional expert of its choice (integrator, specifier or the like) perform the appropriate and comprehensive risk analysis, evaluation and testing of the products/solutions with respect to the relevant specific application or use thereof.

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# Safety Information

## Important Information

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

### **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

### **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

### **NOTICE**

**NOTICE** is used to address practices not related to physical injury.

## Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

# About the Document

## Document Scope

This document describes the specifications, installation, operation, and maintenance of the GP6000 Series Standard Model, which is an HMI (Human Machine Interface) device used in industrial or factory automation systems.

This document is intended for users who design systems, or install and maintain components.

## Validity Note

This document is valid for the GP6000 Series Standard Model.

The characteristics of the products described in this document are intended to match the characteristics that are available on [www.pro-face.com](http://www.pro-face.com). As part of our corporate strategy for constant improvement, we may revise the content over time to enhance clarity and accuracy. If you see a difference between the characteristics in this document and the characteristics on [www.pro-face.com](http://www.pro-face.com), consider [www.pro-face.com](http://www.pro-face.com) to contain the latest information.

## Product Related Information

This product has been designed, developed and manufactured for use in industrial or factory automation systems.

- The product is not appropriate for use with aircraft control devices, medical life-support equipment, central trunk data transmission (communication) devices, or nuclear power control devices, due to inherent requirements for extremely high levels of safety and reliability.
- When using the product with transportation vehicles (trains, cars, and ships), disaster and crime prevention devices, safety equipment, or medical devices unrelated to life-support systems, use redundant and/or failsafe system designs to ensure reliability and safety.

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

**⚠ ⚠ DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply prior to installing or removing the product.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.
- Replace and secure all covers or elements of the system before applying power to this product.
- Use only the specified voltage when operating this product. The DC model is designed to use 24 Vdc, and the AC model is designed to use 100 to 240 Vac. Always check whether your device is DC or AC powered before applying power.
- When using this product in Class I, Division 2, Groups A, B, C, and D hazardous locations, install this product in an enclosure that prevents the operator from touching the back of this product without the use of tools.

**Failure to follow these instructions will result in death or serious injury.**

Critical alarm indicators and system functions require independent and redundant protection hardware and/or mechanical interlocks.

Please design a safety circuit external to this product so that the entire system operates safely even if the external power supply or this product fails or malfunctions.

- Interlocks and other circuits designed to interrupt or prevent equipment operation (such as emergency stops, protective circuits, and opposing action circuits) and circuits that prevent machine damage, such as positioning mechanisms, should be constructed external to the product.
- The product stops operation when it detects an abnormality such as a watchdog timer error. If an error occurs in the input/output control area, which cannot be monitored, it may lead to unexpected input/output behavior. Therefore, it is important to configure an external fail-safe circuit or mechanism.
- Problems with the relay or transistor in the output unit may cause the output to remain either in the ON or OFF state. Install an external monitoring circuit for output signals that may cause a serious accident.

Design the circuit so that power is supplied to the external device or load control power supply connected to this product before it starts.

When you cycle power, wait at least 10 seconds after it has been turned off. If this product is restarted too quickly, it may not operate correctly.

Do not create any switches on the touch panel that may cause personal injury, property damage, or compromise the safety of the equipment. Design the system so that controls for important operations are managed by devices other than this product, or by independent hardware switches.

In the event the screen cannot be properly read, for example, if the backlight is not functioning, it may be difficult or impossible to identify a function. Functions that may present a hazard if not immediately executed, such as a fuel shut-off, must be provided independently of this product.

## ⚠ WARNING

### LOSS OF CONTROL

- The designer of any control scheme must consider the potential failure modes of control paths and, for certain critical control functions, provide a means to achieve a safe state during and after a path failure. Examples of critical control functions are emergency stop and overtravel stop, power outage and restart.
- Separate or redundant control paths must be provided for critical control functions.
- System control paths may include communication links. Consideration must be given to the implications of unanticipated transmission delays or failures of the link.
- Observe all accident prevention regulations and local safety guidelines.
- Each implementation of this product must be individually and thoroughly tested for proper operation before being placed into service.
- The machine control system design must take into account the possibility of the backlight no longer functioning and the operator being unable to control the machine, or making errors in the control of the machine.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

For additional information, refer to NEMA ICS 1.1 (latest edition), "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control" and to NEMA ICS 7.1 (latest edition), "Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems" or their equivalent governing your particular location.

## ⚠ WARNING

### UNINTENDED EQUIPMENT OPERATION

- The application of this product requires expertise in the design and programming of control systems. Only persons with such expertise should be allowed to program, install, alter, and apply this product.
- Do not use this product as the only means of control for critical system functions such as motor start/stop or power control.
- Do not use this equipment as the only notification device for critical alarms, such as device overheating or overcurrent.
- Use only the software provided with this product. If you use other software, please confirm the operation and safety before use.
- Follow all applicable safety standard, local regulations and directives.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

The following characteristics are specific to the LCD panel and are considered normal behavior:

- LCD screen may show unevenness in the brightness of certain images or may appear different when seen from outside the specified viewing angle. Extended shadows, or crosstalk may also appear on the sides of screen images.
- LCD screen pixels may contain black and white colored spots and color display may seem to have changed.
- When experiencing vibrations within a certain frequency range and vibration acceleration is above what is acceptable, the LCD screen may partially turn white. Once the vibration condition ends, the whitening of the screen is resolved.
- When the same image is displayed on the screen for a long period, an afterimage may appear when the image is changed.

- The panel brightness may decrease when used for a long time in an environment continuously filled with inert gas. To prevent deterioration of panel brightness, regularly ventilate the panel. For more information, please contact customer support.  
<https://www.pro-face.com/trans/en/manual/1015.html>

## **▲WARNING**

### **SERIOUS EYE AND SKIN INJURY**

The liquid in the LCD panel contains an irritant:

- Avoid direct skin contact with the liquid.
- Wear gloves when you handle a broken or leaking unit.
- Do not use sharp objects or tools in the vicinity of the LCD panel.
- Handle the LCD panel carefully to prevent puncture, bursting, or cracking of the panel material.
- If the panel is damaged and any liquid comes in contact with your skin, immediately rinse the area with running water for at least 15 minutes. If the liquid gets in your eyes, immediately rinse your eyes with running water for at least 15 minutes and consult a doctor.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## **NOTICE**

### **REDUCED SERVICE LIFE**

Change the screen image periodically and try not to display the same image for a long period of time.

**Failure to follow these instructions can result in equipment damage.**

## **General Cybersecurity Information**

In recent years, the growing number of networked machines and production plants has seen a corresponding increase in the potential for cyber threats, such as unauthorized access, data breaches, and operational disruptions. You must, therefore, consider all possible cybersecurity measures to help protect assets and systems against such threats.

To help keep your Pro-face products secure and protected, it is in your best interest to implement the cybersecurity best practices as described in the *Cybersecurity Best Practices* document.

Pro-face provides additional information and assistance:

- Visit the [Security Notification page](#) to find security notifications.
- Contact us to report vulnerabilities and incidents.

## **Product Related Cybersecurity Information**

Refer to *Cybersecurity*, page 12.

## Environmental Data

For product compliance and environmental information, refer to the Pro-face Environmental Data Program.

## Available Languages of the Document

The document is available in these languages:

- English (GP6000-STD-MM01-EN)
- French (GP6000-STD-MM01-FR)
- German (GP6000-STD-MM01-DE)
- Spanish (GP6000-STD-MM01-ES)
- Italian (GP6000-STD-MM01-IT)
- Chinese (GP6000-STD-MM01-CS)
- Japanese (GP6000-STD-MM01-JA)
- Korean (GP6000-STD-MM01-KO)

## Related Documents

Title of documentation	Reference number
Cybersecurity Best Practices	Refer to General Cybersecurity Information, page 9.
HMI/IPC Cybersecurity Guide	PFHMIIPCCS-MM01-EN (ENG) PFHMIIPCCS-MM01-JA (JPN)
GP6000 Series System Settings User Guide	English (GP6000-SYS-MM01-EN) French (GP6000-SYS-MM01-FR) German (GP6000-SYS-MM01-DE) Spanish (GP6000-SYS-MM01-ES) Italian (GP6000-SYS-MM01-IT) Chinese (GP6000-SYS-MM01-CS) Japanese (GP6000-SYS-MM01-JA) Korean (GP6000-SYS-MM01-KO)

You can download the manuals related to this product, such as the software manual, from the Pro-face download page ([www.pro-face.com/trans/en/manual/1085.html](http://www.pro-face.com/trans/en/manual/1085.html)).

## Information on Non-Inclusive or Insensitive Terminology

As a responsible, inclusive company, Schneider Electric is constantly updating its communications and products that contain non-inclusive or insensitive terminology. However, despite these efforts, our content may still contain terms that are deemed inappropriate by some customers.

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Product names used in this manual may be the registered trademarks owned by the respective proprietors.

# Cybersecurity

## Cybersecurity Guideline

Use this product inside a secure industrial automation and control system. Total protection of components (equipment/devices), systems, organizations, and networks from cyber attack threats requires multi-layered cyber risk mitigation measures, early detection of incidents, and appropriate response and recovery plans when incidents occur. For more information about cybersecurity, refer to the Pro-face HMI/IPC Cybersecurity Guide.

[https://www.proface.com/en/download/manual/cybersecurity\\_guide](https://www.proface.com/en/download/manual/cybersecurity_guide)

### **▲ WARNING**

#### **POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY**

- Change default passwords at first use to help prevent unauthorized access to device settings, controls and information.
- Disable unused ports/services and default accounts, where possible, to minimize pathways for malicious attacks.
- Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection).
- Apply the latest updates and hotfixes to your Operating System and software.
- Use cybersecurity best practices (for example: least privilege, separation of duties) to help prevent unauthorized exposure, loss, modification of data and logs, interruption of services, or unintended operation.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## Security Seal

This product has a security seal attached, which helps detect unauthorized repairs or modifications to the product. Once the security seal is removed, it cannot be reapplied, increasing the product's security risk.

### **▲ WARNING**

#### **POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY**

- Do not remove the security seal on the product.
- Do not use products with removed security seals.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

# Overview

## What's in This Chapter

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## Model Numbers

### Model List

Series	Display size	Model number
GP6000 Series Standard Model	5-inch	PFXGP6300TAD
	7-inch	PFXGP6400TAD
	10-inch	PFXGP6500TAD PFXGP6500TADC PFXGP6500TADFZ26 PFXGP6500TAA PFXGP6500TMD PFXGP6500TMA
	12-inch	PFXGP6600TAD PFXGP6600TADC PFXGP6600TADFZ26 PFXGP6600TAA PFXGP6600TMD PFXGP6600TMA

**NOTE:** All model numbers may be followed by any letter or number.

## Model Number Configuration

The following describes the configuration of model numbers.

Digit	Category	Number	Description
1...3	(Prefix)	PFX	-
4...6	Series	GP6	-
7	Display size	3	5"
		4	7"
		5	10"
		6	12"
8, 9	Type	00	Standard
10	LCD	T	TFT
11	Touch panel	A	Analog
		M	Matrix
12	Power supply	A	AC
		D	DC
13 and later	Customizing and others	(none)	Normal
		C	Coating model

Digit	Category	Number	Description
		FZ26	Nitrogen gas protection model (N2 model)

## Package Contents

Verify all items listed here are present in your package.

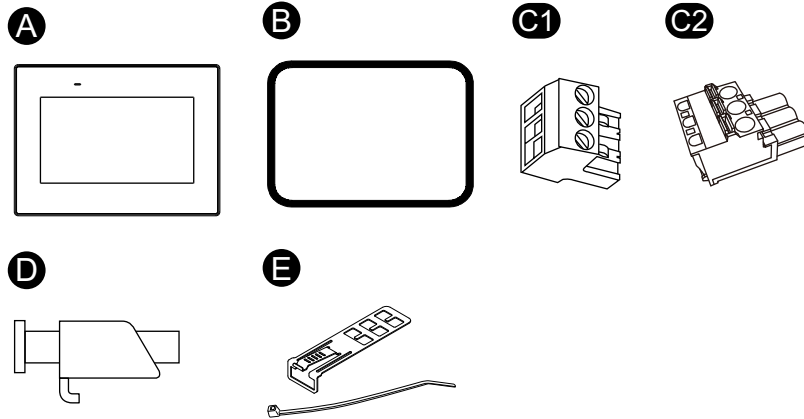
If you find anything damaged or missing, please contact customer support immediately.

### **⚠ WARNING**

#### **UNINTENDED EQUIPMENT OPERATION**

Do not use damaged products or accessories.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

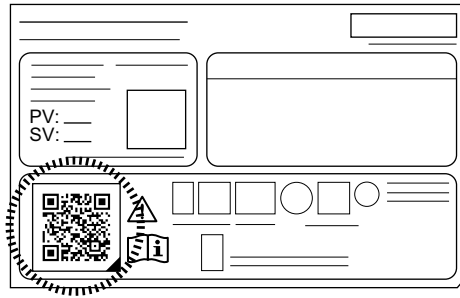


- A. GP6000 Series Standard Model x 1
- B. Installation gasket (attached to this product) x 1
- C. DC power connector (only for DC model) x 1
  - C1: 5-inch, 7-inch models
  - C2: 10-inch, 12-inch models
- D. Installation fasteners x 4
- E. USB cable clamp (Type-A) x 1 set
- F. Instruction sheet x 1

## Product Revision and QR Code

You can identify the product version (PV) and the software version (SV) from the product label.

You can also check the contents of this manual by using the QR code on the product label. Confirm the location of the QR code below and refer to the manual.



## Certifications and Standards

The certifications and standards listed below may include those that are not yet acquired. Please check the product marking and the following URL for the latest acquisition status.

<https://www.pro-face.com/trans/en/manual/1002.html>

## Agency Certifications

### All models

- Underwriters Laboratories LLC., UL 61010-2-201 and CSA C22.2 N°61010-2-201, for Industrial Control Equipment used in Ordinary Locations
- Underwriters Laboratories LLC., UL 121201 and CSA C22.2 N°213, for Industrial Control Equipment used in Class I, Division 2 Hazardous (Classified) Locations

### Only DC models

- IECEx / ATEX for use in zone 2 gas /zone 22 dust
- CCCEX
- KCs
- EU RO Mutual Recognition (EU RO MR) following IACS UR E10
- China Classification Society (CCS)
- Det Norske Veritas (DNV)
- Nippon Kaiji Kyokai (NK)

## Compliance Standards

Europe:

CE/UKCA

- Directive 2014/35/EU (Low Voltage)
- Directive 2014/30/EU (EMC)
- Directive 2014/34/EU (ATEX)

Australia, New Zealand:

- RCM

Korea:

- KC

## Hazardous Substances

This product is designed to be compliant with the following environmental regulations, even if the product may not fall directly in the scope of the regulation:

- RoHS, Directive 2011/65/EU and 2015/863/EU
- RoHS China, Standard GB/T 26572
- REACH regulation EC 1907/2006

## End of Life (WEEE)

The product contains electronic boards. It must be disposed of in specific treatment channels. The product contains cells and/or storage batteries which must be collected and processed separately when they have run out and at the end of product life (Directive 2012/19/EU).

Refer to [Maintenance](#), page 65 when extracting cells and batteries from the product. These batteries do not contain a weight percentage of heavy metals over the threshold notified by European Battery Regulation 2023/1542.

## KC Markings

기종별	사용자안내문
A급 기기 (업무용 방송통신기자재)	이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

## Federal Communication Commission Radio Frequency Interference Statement - For USA

### FCC Radio Interference Information

This product has been tested and found to comply with the Federal Communications Commission (FCC) limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial, industrial or business environment. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause or be subject to interference with radio communications. To minimize the possibility of electromagnetic interference in your application, observe the following two rules:

- Install and operate this product in such a manner that it does not radiate sufficient electromagnetic energy to cause interference in nearby devices.
- Install and test this product to ensure that the electromagnetic energy generated by nearby devices does not interfere with the operation of this product.

**⚠ WARNING****ELECTROMAGNETIC / RADIO INTERFERENCE, UNINTENDED EQUIPMENT OPERATION**

Check for electromagnetic and radio interference. If interference is detected, take the following actions.

- Increase the distance between this product and the interfering equipment.
- Reorient this product and the interfering equipment.
- Reroute power and communication lines to this product and the interfering equipment.
- Connect this product and the interfering equipment to different power supplies.
- Always use shielded cables when connecting this product to a peripheral device or another computer.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this product.

## Hazardous Location Installation - For USA and Canada

### General

This product is suitable for use in Class I, Division 2, Groups A, B, C, and D hazardous locations or in non-hazardous locations. Before installing or using this product, confirm that the Hazardous Location certification appears on the product labeling.

**NOTE:** Some products are not yet rated as suitable for use in hazardous locations. Always use your product in conformance with the product labeling and this manual.

**⚠⚠ DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply prior to installing or removing the product.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.
- Replace and secure all covers or elements of the system before applying power to this product.
- Use only the specified voltage when operating this product. The DC model is designed to use 24 Vdc, and the AC model is designed to use 100 to 240 Vac. Always check whether your device is DC or AC powered before applying power.

**Failure to follow these instructions will result in death or serious injury.**

## ⚠ WARNING

### EXPLOSION HAZARD

- Do not use this product in hazardous environments or locations other than Class I, Division 2, Groups A, B, C, and D.
- Substitution of any components may impair suitability for Class I, Division 2.
- Always confirm the UL 121201 or CSA C22.2 No.213 hazardous location rating of your device before installing or using it in a hazardous location.
- To apply or remove the supply power from this product installed in a Class I, Division 2 hazardous location, you must either: A) Use a switch located outside the hazardous environment, or B) Use a switch certified for Class I, Division 1 operation inside the hazardous area.
- Do not connect or disconnect equipment unless power has been switched off or the area is known to be non-hazardous. This applies to all connections including power, ground, serial, parallel, and network connections.
- Do not install any components, equipment, or accessories manufactured by us or by OEM unless these have also been qualified as suitable for use in Class I, Division 2, Groups A, B, C, and D locations.
- Always use shielded/grounded cables in hazardous locations.
- Use only non-incendive USB devices.
- Do not attempt to install, operate, modify, maintain, service, or otherwise alter this product except as permitted in this manual. Unpermitted actions may impair the suitability of this product for Class I, Division 2 operation.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Make sure that this product is properly rated for the location. If the intended location does not presently have a Class, Division and Group rating, then users should consult the appropriate authorities having jurisdiction in order to determine the correct rating for that hazardous location.

## Operation and Maintenance

The systems have been designed for compliance with relevant spark ignition tests.

## ⚠ WARNING

### EXPLOSION HAZARD

In addition to the other instructions in this manual, observe the following rules when installing this product in a hazardous location:

- Wire the equipment in accordance with the National Electrical Code article 501.10 (B) for Class I, Division 2 hazardous locations.
- Install this product in an enclosure suitable for the specific application.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

# Device Connectivity

## What's in This Chapter

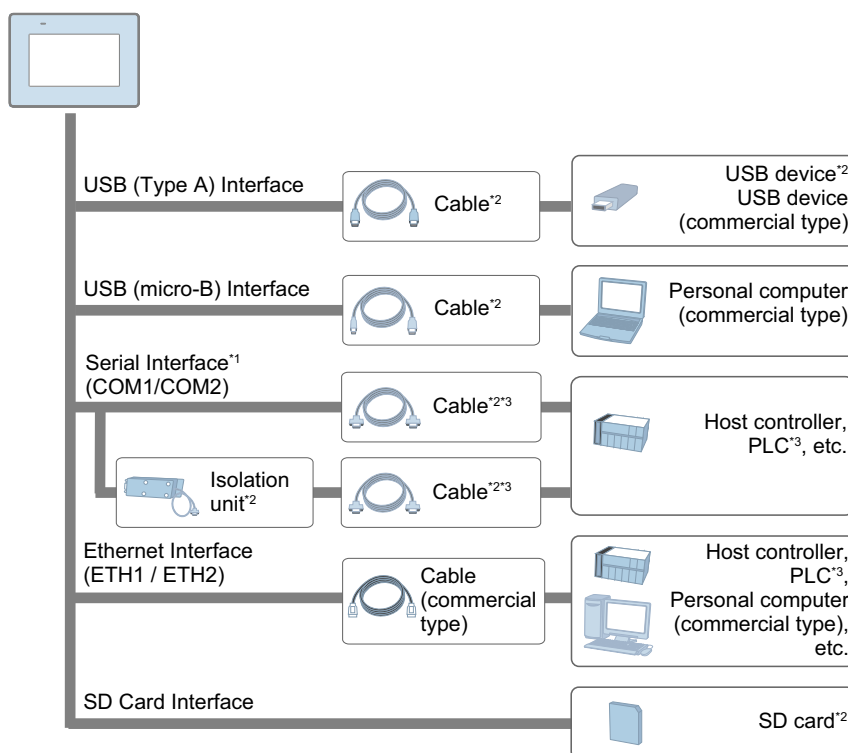
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## System Design

This section describes the system configuration with this product and peripheral equipment.

**NOTE:**

- The number of interfaces may vary depending on the model. Refer to Parts Identification and Functions, page 22.
- External storage devices used with this product should be formatted with the FAT, FAT32, or exFAT file system.
- When powering up the product for the first time, initial setup is required. For information on configuring the product, refer to the **System Settings User Guide**. The manuals for this product are listed in **Related Documents**, page 10.



\*1 In order to use this as an isolation port, Isolation Unit is required. To use RS-232C isolation unit, set the #9 pin of the COM port to VCC.

\*2 Refer to Accessories, page 19.

\*3 For information on how to connect controllers and other types of equipment, refer to the corresponding device driver manual of your screen editing software.

## Accessories

This section introduces optional items that are sold separately.

Products may change or be discontinued without notice. Please check our website for the latest information.

<https://www.pro-face.com>

For host controllers and connection cables, refer to the corresponding device driver manual of your screen editing software.

Product name	Product number	Description
<b>Serial interface</b>		
9-pin to 25-pin RS-232C Conversion Cable (0.2 m)	PFXZC3CBCVR21	Cable for converting a D-Sub 9-pin plug to a D-Sub 25-pin socket (RS-232C). (0.2 m [0.66 ft])
RS-422 9/25-pin Conversion Cable (0.2 m)	PFXZCBCBCVR41	Cable for converting a D-Sub 9-pin plug to a D-Sub 25-pin socket (RS-422). (0.2 m [0.66 ft])
RS-422 Terminal Block Conversion Adapter	PFXZCBADTM1	Connects output from a serial interface (D-Sub 9 pin plug) directly to an RS-422 terminal block.
Terminal Block Conversion Adapter	PFXZC3ADR41	Connects output from a serial interface with an RS-422 terminal block.
RS-232C Isolation Unit	PFXZC3ADISR21	Connects a host controller to this product and provides isolation (RS-232C and RS-422 are switchable).
COM Port Conversion Adapter	PFXZC3ADCM1	Connects optional RS-422 communication items to serial interface.
<b>USB (micro-B) interface</b>		
USB Transfer Cable	PFXZUSCBMB2	Cable for transferring screen data from a PC (USB Type-A) to this product (USB micro-B).
USB (micro-B) Front Cable	PFXZCIEXMB2	Extension cable that attaches USB interface to front panel.
USB Clamp mini-B (1 port)	PFXZC9USCLMB1	Clamp to prevent disconnection of USB cable (USB/mini-B, 1 port, 5 clamps/set).
<b>USB (Type-A) interface</b>		
USB Front Cable (1 m)	PFXZC5CBUBEX1	Extension cable that attaches USB interface to front panel.
<b>SD card interface</b>		
SD Memory Card	PFXZCBSD4GC41	SD memory card (4 GB), SDHC
	PFXZCSD16GC101	SD memory card (16 GB, pSLC), SDHC
	PFXZCSD32GC101	SD memory card (32 GB, pSLC), SDHC
	PFXYP6SD64GCX	SD memory card (64 GB), SDXC
<b>Others</b>		
Screen Protection Sheet	PFXZCBDS61	Disposable, dirt-resistant sheet for 5-inch screen (5 sheets/set).
	PFXZCBDS71	Disposable, dirt-resistant sheet for 7-inch screen (5 sheets/set).
	PFXZCBDS101	Disposable, dirt-resistant sheet for 10-inch screen (5 sheets/set).
	PFXZC7DS121	Disposable, dirt-resistant sheet for 12-inch screen (5 sheets/set).

Product name	Product number	Description
UV Protection Sheet	PFXZCFUV61	Sheet to protect the display from ultraviolet light, for 5-inch screen (1 sheet).
	PFXZCFUV71	Sheet to protect the display from ultraviolet light, for 7-inch screen (1 sheet).
	PFXZCFUV101	Sheet to protect the display from ultraviolet light, for 10-inch screen (1 sheet).
Environment Cover	PFXZCBOP62	Disposable, environmental resistant cover for 5-inch screen (1 sheet).
	PFXZCBOP72	Disposable, environmental resistant cover for 7-inch screen (1 sheet).
	PFXZCBOP102	Disposable, environmental resistant cover for 10-inch screen (1 sheet).
	PFXZCBOP122	Disposable, environmental resistant cover for 12-inch screen (1 sheet).

## Maintenance Accessories

This section lists replacement parts.

Product name	Product number	Description
Installation Fastener	PFXZC3AT1	Fastener for installing the product into a solid panel (4 pieces/set).
Installation Gasket	PFXZHWG31	Provides dust and moisture resistance when 5-inch model is installed into a solid panel (1 piece).
	PFXZCBWG72	Provides dust and moisture resistance when 7-inch model is installed into a solid panel (1 piece).
	PFXZCBWG102	Provides dust and moisture resistance when 10-inch model is installed into a solid panel (1 piece).
	PFXZHWG51	Provides dust and moisture resistance when 12-inch model is installed into a solid panel (1 piece).
DC Power Supply Connector	PFXZC5CNDGM1	Connector to connect DC power supply cables (Straight type, 5 pieces/set).
DC Power Supply Connector (Right-angle)	PFXZCBCNDC2	Connector to connect DC power supply cables (Right-angle type, 5 pieces/set).
USB Clamp Type-A (1 port)	PFXZCBCLUSA1	Clamp to prevent disconnection of USB cable (USB Type-A, 1 port, 5 clamps/set).

# Parts Identification and Functions

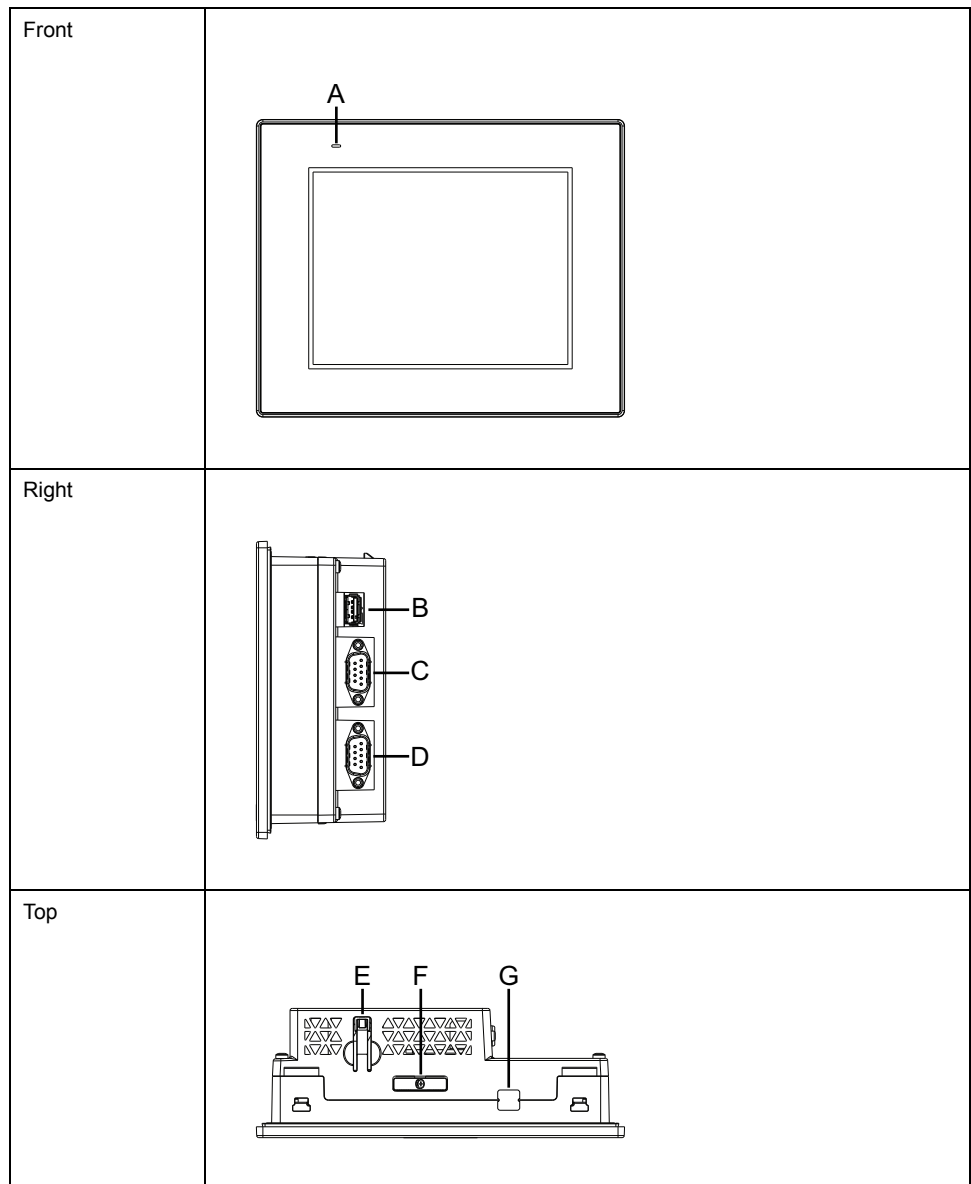
## What's in This Chapter

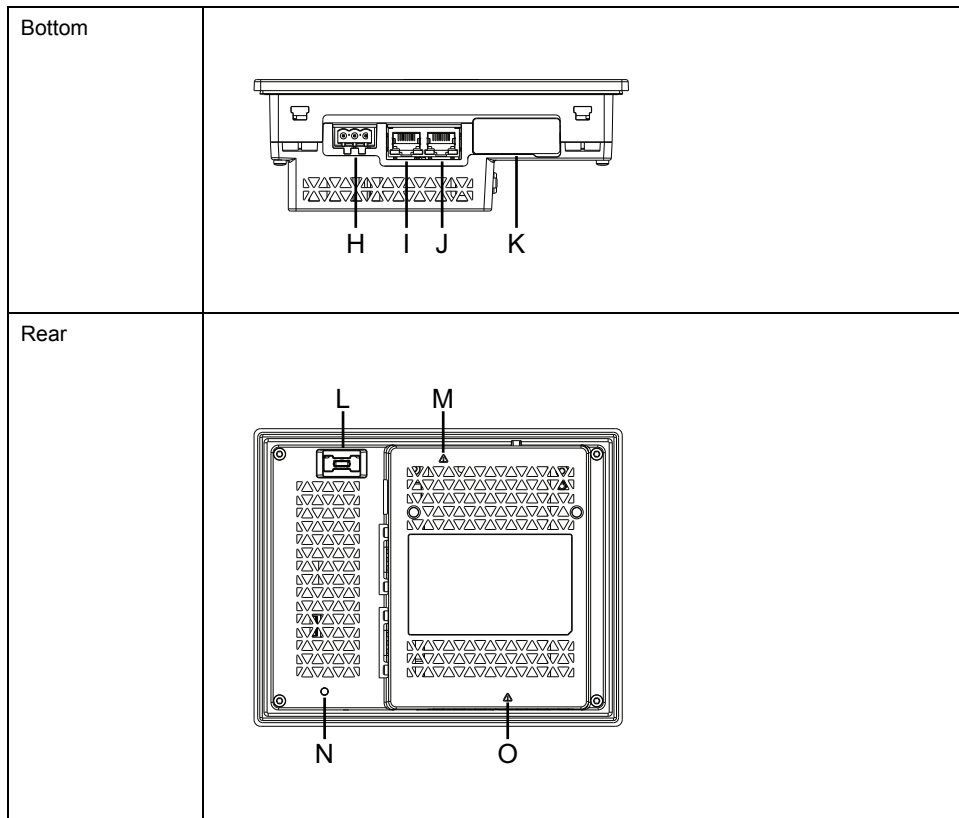
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## Parts Identification

### Parts Identification (5-inch, 7-inch Model)

**NOTE:** The figures below show the 5-inch model.





- A: Status LED
- B: USB (Type-A) interface
- C: Serial interface (COM1)
- D: Serial interface (COM2)
- E: Hook
- F: Battery slot
- G: Security seal\*1
- H: Power connector
- I: Ethernet interface (ETH2)\*2
- J: Ethernet interface (ETH1)
- K: SD card slot cover
- L: USB (micro-B) interface
- M: Safety alert symbol\*3
- N: SD card access LED
- O: Safety alert symbol\*4

\*1 For details, refer to [Security Seal](#), page 12.

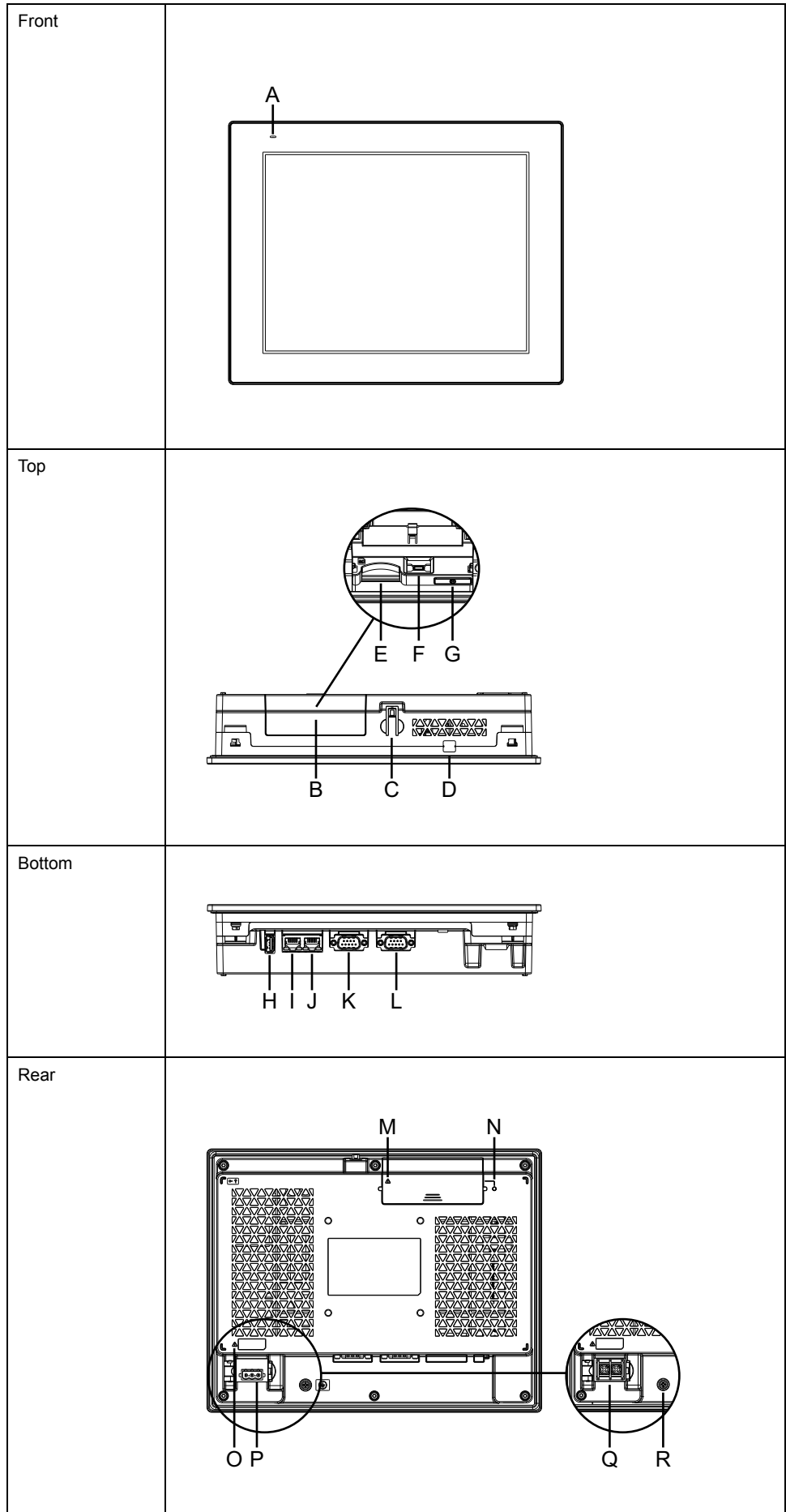
\*2 The factory default for the ETH2 port is disabled. To enable it, change the setting in the **System Settings**. For details, refer to [GP6000 Series System Settings User Guide](#).

\*3 Identifies the safety messages about the battery in [Replacing the Battery](#), page 67.

\*4 Identifies the safety messages about the power wiring in [Wiring the Power Supply](#), page 50.

## Parts Identification (10-inch, 12-inch Model)

**NOTE:** The figures below show the 10-inch model.



A: Status LED

J: Ethernet interface (ETH1)

B: Slot cover (SD card/USB/Battery)

K: Serial interface (COM2)

C: Hook	L: Serial interface (COM1)
D: Security seal*1	M: Safety alert symbol*3
E: SD card slot	N: SD card access LED
F: USB (micro-B) interface	O: Safety alert symbol*4
G: Battery slot	P: Power connector (DC model)
H: USB (Type-A) interface	Q: Power terminal block (AC model)
I: Ethernet interface (ETH2)*2	R: PE terminal (used for AC model only)

\*1 For details, refer to *Security Seal*, page 12.

\*2 The factory default for the ETH2 port is disabled. To enable it, change the setting in the **System Settings**. For details, refer to *GP6000 Series System Settings User Guide*.

\*3 Identifies the safety messages about the battery in *Replacing the Battery*, page 67.

\*4 Identifies the safety messages about the power wiring in *Wiring the Power Supply*, page 50.

## LED Indications

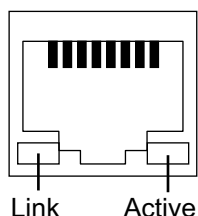
### Status LED

After the power is turned on, the normal status indication by the LED is: red light > blinking orange > green light.

Color	Indicator	HMI operation
Green	ON	In operation/Offline
	Blinking (ON/OFF every 3 seconds)	Backlight OFF (Standby Mode)
Orange	Blinking	Software starting up
Red	ON	Power is ON.
-	OFF	Power is OFF.

For other LED indications, refer to the manual of your screen editing software.

### Ethernet LED



Color	Indicator	Description
Green (Link)	ON	Data transmission is available.
	OFF	No connection or error
Green (Active)	ON	Data transmission in progress
	OFF	No data transmission

## SD Card Access LED

Color	Indicator	Description
Green	ON	The SD card is inserted.
	OFF	The SD card is not inserted. Or is not being accessed.

# Specifications

## What's in This Chapter

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## General Specifications

### Electrical Specifications

#### AC Model

		10-inch, AC model	12-inch, AC model
Rated input voltage		100...240 Vac	
Input voltage limits		85...264 Vac	
Rated frequency		50/60 Hz	
Rated frequency range		47...63 Hz	
Voltage dip/short interruption immunity		1 cycle or less (Voltage drop interval must be 1 second or longer)	
Power consumption	Max	100 Vac: 18.3 VA or less 240 Vac: 29.1 VA or less	100 Vac: 23.7 VA or less 240 Vac: 34.8 VA or less
	When power is not supplied to external devices	100 Vac: 12.9 VA or less 240 Vac: 24.3 VA or less	100 Vac: 18.2 VA or less 240 Vac: 28.8 VA or less
	When screen turns off the backlight (standby mode)	100 Vac: 8.7 VA or less 240 Vac: 20.5 VA or less	100 Vac: 8.9 VA or less 240 Vac: 20.5 VA or less
In-rush current		30 A or less	
Noise immunity		Noise voltage: 1,500 Vp-p, Pulse duration: 1 μs, Rise time: 1 ns (via noise simulator)	
Dielectric strength		1,500 Vac for 1 minute (between power terminal and PE terminal)	
Insulation resistance		500 Vdc, 10 MΩ or more (between power terminal and PE terminal)	

**DC Model**

		5-inch, DC model	7-inch, DC model
Rated input voltage		24 Vdc	
Input voltage limits		19.2...28.8 Vdc	
Voltage dip/short interruption immunity		5 ms or less (at rated input voltage)	
Power consumption	Max	9.3 W or less	9.6 W or less
	When power is not supplied to external devices	5.5 W or less	5.8 W or less
	When screen turns off the backlight (standby mode)	4.1 W or less	4.1 W or less
In-rush current		30 A or less	
Noise immunity		Noise voltage: 1,000 Vp-p, Pulse duration: 1 $\mu$ s, Rise time: 1 ns (via noise simulator)	
Dielectric strength		1,000 Vac for 1 minute (between power terminal and FG terminal)	
Insulation resistance		500 Vdc, 10 M $\Omega$ or more (between power terminal and FG terminal)	

		10-inch, DC model	12-inch, DC model
Rated input voltage		24 Vdc	
Input voltage limits		19.2...28.8 Vdc	
Voltage dip/short interruption immunity		10 ms or less (at rated input voltage)	
Power consumption	Max	10 W or less	13.5 W or less
	When power is not supplied to external devices	6.8 W or less	10.2 W or less
	When screen turns off the backlight (standby mode)	4.5 W or less	4.8 W or less
In-rush current		30 A or less	
Noise immunity		Noise voltage: 1,000 Vp-p, Pulse duration: 1 $\mu$ s, Rise time: 1 ns (via noise simulator)	
Dielectric strength		1,000 Vac for 1 minute (between power terminal and FG terminal)	
Insulation resistance		500 Vdc, 10 M $\Omega$ or more (between power terminal and FG terminal)	

**Environmental Specifications**

Use and store this product in areas that conform to the specified conditions.

**NOTE:** When using any of the options for this product, check the specifications for special conditions or cautions that may apply to this product.

<b>Physical environment</b>	
Ambient air temperature	0...55 °C (32...131 °F) Temperature class (T-Code): T4  For PFXGP6500TADFZ26 and PFXGP6600TADFZ26; 0...45 °C (32...113 °F) Temperature class (T-Code): T6
Storage temperature	-20...60 °C (-4...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/m <sup>3</sup> (10 <sup>-7</sup> oz/ft <sup>3</sup> ) or less (non-conductive levels)
Pollution degree	For use in Pollution Degree 2 environment
Corrosive gases	Free of corrosive gases
Atmospheric pressure (operating altitude)	800...1,114 hPa (2,000 m [6,561 ft] or lower)
<b>Mechanical environment</b>	
Vibration resistance	IEC/EN 61131-2 compliant 5...9 Hz Single amplitude 3.5 mm (0.14 in) 9...150 Hz Fixed acceleration: 9.8 m/s <sup>2</sup> X, Y, Z directions for 10 cycles (approximately 100 minutes)
Shock resistance	IEC/EN 61131-2 compliant 147 m/s <sup>2</sup> , X, Y, Z directions for 3 times
<b>Electrical environment</b>	
Electrical fast transient/burst immunity	IEC 61000-4-4 2 kV: Power port 1 kV: Signal ports
Electrostatic discharge immunity	Contact discharge method: 6 kV Air discharge method: 8 kV (IEC/EN 61000-4-2 Level 3)

## ⚠ CAUTION

### INOPERATIVE EQUIPMENT

- Do not operate or store the product where chemicals evaporate, or where chemicals are present in the air. Chemicals refer to the following: A) Corrosive chemicals: Acids, alkalines, liquids containing salt, B) Flammable chemicals: Organic solvents.
- Do not allow water, liquids, metal, and wiring fragments to enter the panel case.

**Failure to follow these instructions can result in injury or equipment damage.**

## Structural Specifications

	5-inch	7-inch
Grounding	Functional grounding: Grounding resistance of 100 Ω or less, 2 mm <sup>2</sup> (14 AWG) or thicker wire, or your country's applicable standard (SG and FG are connected inside the product).	
Cooling method	Natural air circulation	
Structure*1	IP65F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 12 and Type 13 (on the front panel when properly installed in an enclosure)	
External dimensions (W x H x D)	169.5 x 137 x 59.5 mm (6.67 x 5.39 x 2.34 in)	218 x 173 x 60 mm (8.58 x 6.81 x 2.36 in)

	5-inch	7-inch
Panel cutout dimensions (W x H) <sup>*2,3</sup>	156 x 123.5 mm (6.14 x 4.86 in) Panel thickness range: 1.6... 5 mm (0.06...0.2 in)	204.5 x 159.5 mm (8.05 x 6.28 in) Panel thickness range: 1.6... 5 mm (0.06...0.2 in)
Weight	0.8 kg (1.76 lb) or less	1.1 kg (2.42 lb) or less

	10-inch	12-inch
Grounding	DC model: Functional grounding: Grounding resistance of 100 Ω or less, 2 mm <sup>2</sup> (14 AWG) or thicker wire, or your country's applicable standard (SG and FG are connected inside the product).  AC model: Protective grounding: Grounding resistance of 100 Ω or less, 0.75 to 3.5 mm <sup>2</sup> (18 to 12 AWG) or thicker wire, or your country's applicable standard (SG and PE are connected inside the product).	
Cooling method	Natural air circulation	
Structure <sup>*1</sup>	IP65F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 12 and Type 13 (on the front panel when properly installed in an enclosure)	
External dimensions (W x H x D)	272.5 x 214.5 x 58.5 mm (10.73 x 8.44 x 2.3 in)  PFXGP6500TADFZ26: 272.5 x 214.5 x 63.5 mm (10.73 x 8.44 x 2.5 in)	315 x 241 x 60 mm (12.40 x 9.49 x 2.36 in)
Panel cutout dimensions (W x H) <sup>*2,3</sup>	259 x 201 mm (10.2 x 7.91 in) Panel thickness range: 1.6... 5 mm (0.06...0.2 in)	301.5 x 227.5 mm (11.87 x 8.96 in) Panel thickness range: 1.6... 5 mm (0.06...0.2 in)
Weight	1.9 kg (4.19 lb) or less	2.4 kg (5.29 lb) or less

\*1 The front of this product has been tested to comply with the specified standards when installed in a solid panel. However, it is not intended for use in all environments. In environments where the product is exposed to liquids (including jets and sprays) for extended periods, there is a risk that liquids may enter the product due to causes such as peeling of the protective sheet or damage to the front glass cover. In such environments, implement appropriate protective measures based on the specific conditions. 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 The dimensional tolerance for the width and height of the panel cutout is +1/-0 mm (+0.04/-0 in). All the corners have a radius of R3 mm (R0.12 in) or less.

\*3 Even if the installation wall thickness is within the specified range, 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.

**NOTE:** IP65F is not part of UL certification.

**NOTICE****EQUIPMENT DAMAGE**

- Ensure this product is not in permanent and direct contact with oils.
- Do not press on the display of this product with excessive force or with a hard object.
- Do not press on the touch panel with a pointed object, such as the tip of a mechanical pencil or a screwdriver.
- Do not expose the product to direct sunlight.
- Operate and 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.**

**NOTICE****EQUIPMENT DAMAGE**

- Inspect the gasket periodically as required by your operating environment.
- Replace the gasket at least once a year, or as soon as scratches or dirt become visible.

**Failure to follow these instructions can result in equipment damage.**

## Functional Specifications

### Display Specifications

	5-inch	7-inch
Display type	TFT Color LCD	
Display size	5.7"	7.5"
Resolution	640 x 480 pixels (VGA)	
Effective display area (W x H)	115.20 x 86.40 mm (4.54 x 3.40 in)	151.68 x 113.76 mm (5.97 x 4.48 in)
Display colors	262,144 colors For details about display colors, refer to the manual of your screen editing software.	
Backlight	White LED (Not replaceable.)	
Backlight service life	50,000 hours or more (continuous operation at 25 °C [77 °F] before backlight brightness decreases to 50%)	
Brightness control	0...100 (Adjusted with touch panel or software)	

	10-inch	12-inch
Display type	TFT Color LCD	
Display size	10.4"	12.1"
Resolution	800 x 600 pixels (SVGA)	1,024 x 768 pixels (XGA)
Effective display area (W x H)	211.2 x 158.4 mm (8.31 x 6.24 in)	245.76 x 184.32 mm (9.68 x 7.26 in)
Display colors	16 million colors For details about display colors, refer to the manual of your screen editing software.	

	10-inch	12-inch
Backlight	White LED (Not replaceable.)	
Backlight service life	50,000 hours or more (continuous operation at 25 °C [77 °F] before backlight brightness decreases to 50%)	
Brightness control	0...100 (Adjusted with touch panel or software)	

## Touch Panel

	5-inch, 7-inch, 10-inch (PFXGP6500TA●), 12-inch (PFXGP6600TA●)	10-inch (PFXGP6500TM●)	12-inch (PFXGP6600TM●)
Touch panel type	Resistive film (analog)	Resistive film (matrix)	
Touch points	Single touch	Multi-touch (two-point touch)	
Touch panel service life	1 million times or more		
Touch panel resolution	1,024 x 1,024	32 x 24 keys/screen	40 x 30 keys/screen

The analog-resistive touch panel does not support Multi-touch (two-point touch/multi-point touch). If you touch multiple points on the touch panel, it will operate as if you touched the center-point of the multiple touches.

For example, if you touch two or more points on the touch panel and at the center of the touches is a switch for a drive system, even though you did not directly touch that switch, it may function as if you did.

<b>⚠ WARNING</b>
<b>UNINTENDED EQUIPMENT OPERATION</b>
Do not touch two or more points on a touch panel that does not support Multi-touch (two-point touch/multi-point touch).
<b>Failure to follow these instructions can result in death, serious injury, or equipment damage.</b>

## Memory

System memory*1	eMMC Flash 4 GB (operating system, project data and other data)
Backup memory*1	NVRAM 512 KB

\*1 For the usage capacity of each memory, refer to the following URL.  
<https://www.pro-face.com/trans/en/manual/1082.html>

## Clock

RTC accuracy	±65 seconds per month (deviation at room temperature of 25 °C [77 °F] and power is OFF).
Clock data backup	Lithium metal battery (non-rechargeable battery, replaceable) Battery life: 5 years (approximate)

Variations in operating conditions and battery life can cause clock deviations from -380 to +90 seconds per month. If you use this product in a system where timing is critical, adjust the clock at regular intervals.

If the battery is depleted or removed, the clock data will be lost. To replace the battery, refer to Replacing the Battery, page 67.

## Interface Specifications

### Specifications of Each Interface

Use only the SELV (Safety Extra-Low Voltage) circuit to connect the interfaces.

<b>Serial interface (COM1)</b>	
Connector	D-Sub 9 pin (plug)
Asynchronous transmission	RS-232C
Data length	7 or 8 bits
Stop bit	1 or 2 bits
Parity	None, odd, or even
Data transmission speed	2,400...115,200 bps
<b>Serial interface (COM2)</b>	
Connector	D-Sub 9 pin (plug)
Asynchronous transmission	RS-422/485
Data length	7 or 8 bits
Stop bit	1 or 2 bits
Parity	None, odd, or even
Data transmission speed	2,400...115,200 bps, 187,500 bps (MPI)
<b>USB (Type-A) interface</b>	
Connector	USB 2.0 (Type-A) x 1
Power supply voltage	5 Vdc $\pm$ 5%
Maximum current supplied	500 mA
Maximum transmission distance	5 m (16.4 ft)
<b>USB (micro-B) interface</b>	
Connector	USB 2.0 (micro-B) x 1
Maximum transmission distance	5 m (16.4 ft)
<b>Ethernet interface</b>	
Connector	Modular jack (RJ-45) x 2
Standard	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX
<b>SD card interface</b>	
Connector	SD card slot x 1
Standard	SD/SDHC/SDXC, UHS-I supported

## Interface Connection

### Cable Connections

#### **▲ WARNING**

##### **EXPLOSION HAZARD**

- Always confirm the UL 121201 or CSA C22.2 No.213 hazardous location rating of your device before installing or using it in a hazardous location.
- To apply or remove the supply power from this product installed in a Class I, Division 2 hazardous location, you must either: A) Use a switch located outside the hazardous environment, or B) Use a switch certified for Class I, Division 1 operation inside the hazardous area.
- Do not connect or disconnect equipment unless power has been switched off or the area is known to be non-hazardous. This applies to all connections including power, ground, serial, parallel, and network connections.
- Always use shielded/grounded cables in hazardous locations.
- Use only non-incendive USB devices.
- Use the USB (micro-B) interface for temporary connection only during maintenance and setup of the device.
- Do not use the USB (micro-B) interface in hazardous locations.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Division 2 hazardous location regulations require that all cable connections be provided with adequate strain relief and positive interlock. As this product does not provide adequate strain relief for the USB connection (USB micro-B interface) on this product, use only non-incendive USB devices. Never connect or disconnect a cable while power is applied at either end of the cable. All communication cables should include a chassis ground shield. This shield should include both copper braid and aluminum foil. The D-Sub style connector housing must be a metal conductive type (for example, molded zinc) and the ground shield braid must be terminated directly to the connector housing. Do not use a shield drain wire.

The outer diameter of the cable must be suited to the inner diameter of the cable connector strain relief so that a reliable degree of strain relief is maintained. Always secure the D-Sub connectors to the workstation-mating connectors via the two screws located on both sides.

## Serial Interface

### Precautions for Connecting Serial Interface

The serial interface is not isolated. The SG (signal ground) and FG (frame ground) terminals are connected inside the product. When the serial interface connector is D-Sub, connect the FG wire to the shell.

**NOTE:** For information on how to connect controllers and other types of equipment, refer to the corresponding device driver manual of your screen editing software.

**⚠ ⚠ DANGER****ELECTRIC SHOCK AND FIRE**

- Verify that a ground loop is not created when you set up the system.
- When the SG and FG on the external device are not isolated, connect the product's SG to the SG on the external device.
- Connect the SG to a known reliable ground connection to reduce the risk of damaging the circuit.

**Failure to follow these instructions will result in death or serious injury.**

**⚠ CAUTION****LOSS OF COMMUNICATION**

- Do not put excessive stress on the communication ports of all connections.
- Securely attach communication cables to the panel wall or cabinet.
- Use a D-Sub 9 pin connector that has jack screws.

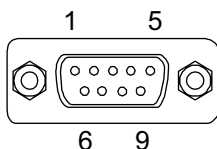
**Failure to follow these instructions can result in injury or equipment damage.**

**NOTE:** Use within the rated current.

**RS-232C (COM1)**

D-Sub 9 pin plug connector

Product side:



Pin No.	RS-232C		
	Signal name	Direction	Meaning
1	CD	Input	Carrier detect
2	RD (RXD)	Input	Receive data
3	SD (TXD)	Output	Send data
4	ER (DTR)	Output	Data terminal ready
5	SG	–	Signal ground
6	DR (DSR)	Input	Data set ready
7	RS (RTS)	Output	Request to send
8	CS (CTS)	Input	Send possible
9	VCC	Output	+5 Vdc ±5% Output 0.25 A*1
Shell	FG	–	Frame ground (common with SG)

\*1 When using RS-232C pin #9, enable VCC with the software.

Recommended jack screw is #4-40 (UNC).

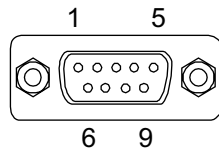
## Recommendations:

- Cable Connector: XM3D-0921 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

**RS-422/485 (COM2)**

D-Sub 9 pin plug connector

Product side:



Pin No.	RS-422/RS-485		
	Signal name	Direction	Meaning
1	RDA	Input	Receive data A (+)
2	RDB	Input	Receive data B (-)
3	SDA	Output	Send data A (+)
4	ERA	Output	Data terminal ready A (+)
5	SG	–	Signal ground
6	CSB	Input	Send possible B (-)
7	SDB	Output	Send data B (-)
8	CSA	Input	Send possible A (+)
9	ERB	Output	Data terminal ready B (-)
Shell	FG	–	Frame ground (common with SG)

Recommended jack screw is #4-40 (UNC).

## Recommendations:

- Cable Connector: XM3D-0921 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

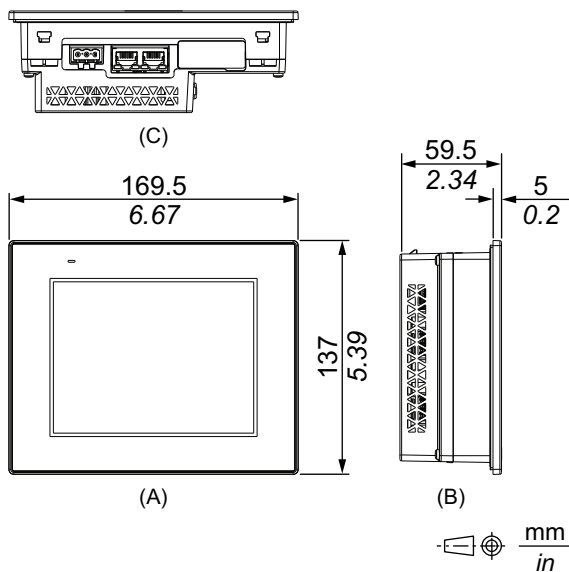
# Dimensions

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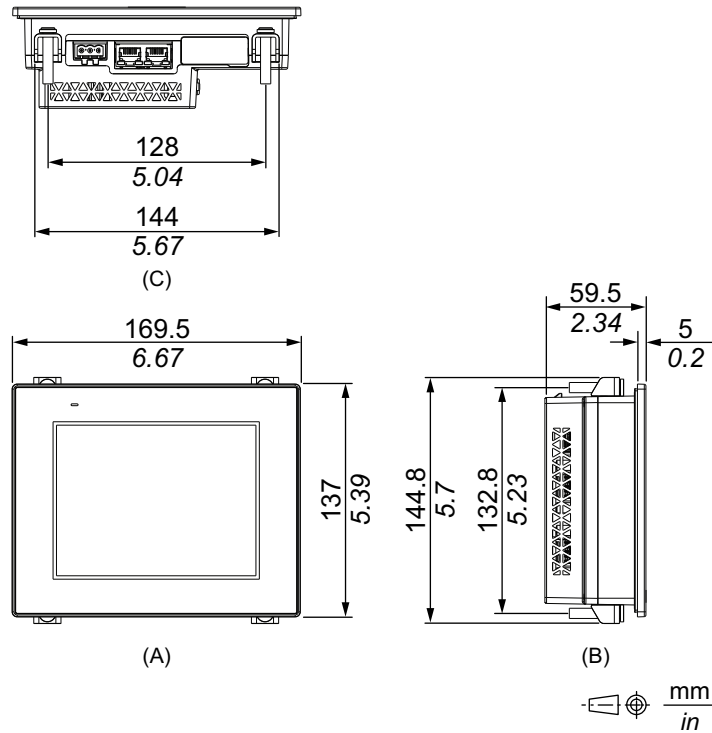
## External Dimensions (5-inch)

### External Dimensions



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

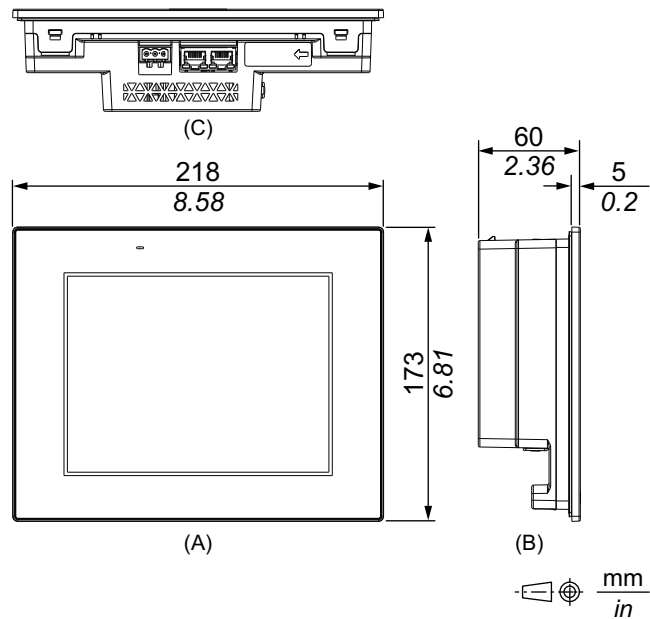
## Dimensions with Installation Fasteners



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

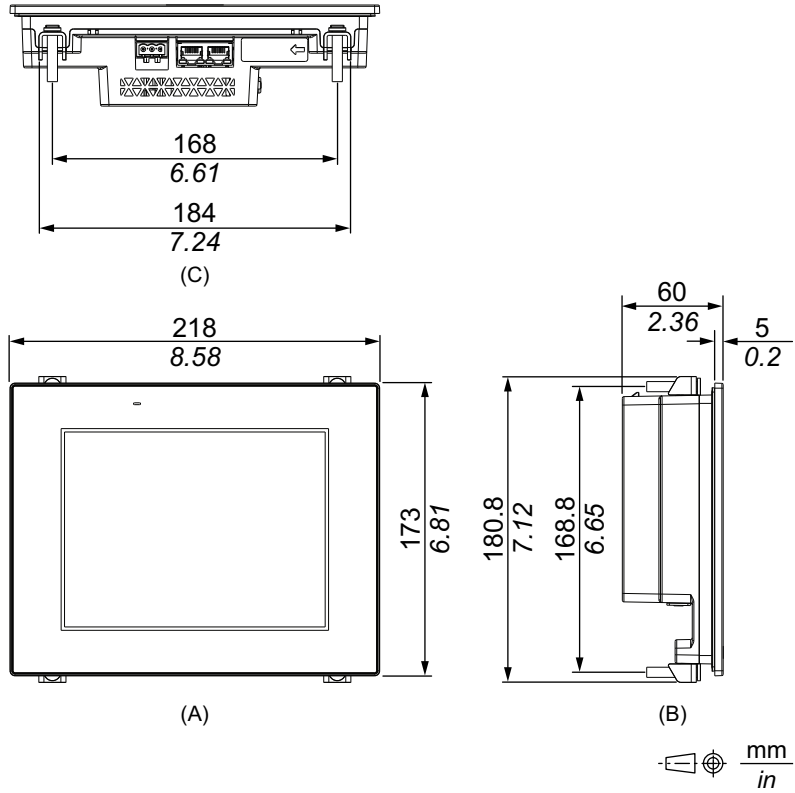
## External Dimensions (7-inch)

### External Dimensions



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

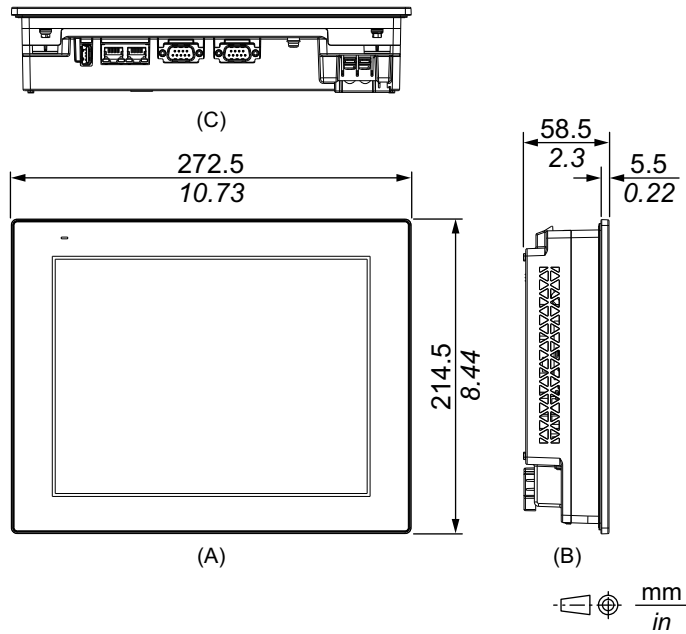
### Dimensions with Installation Fasteners



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

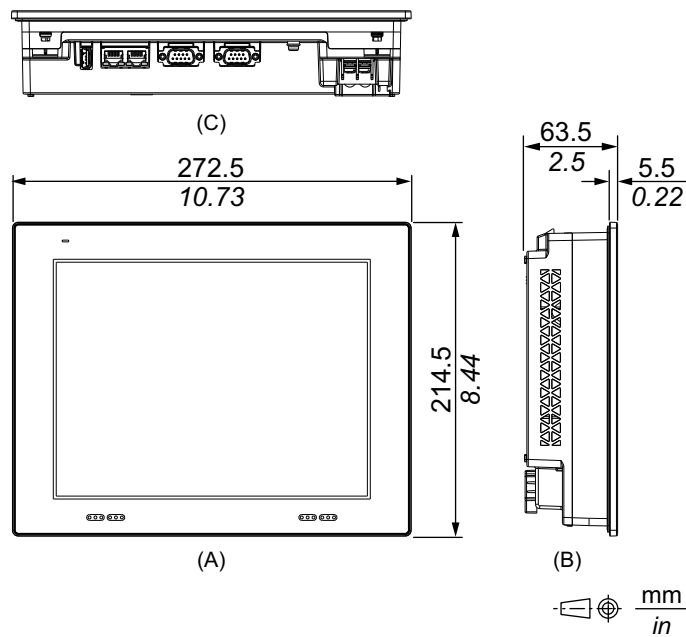
# External Dimensions (10-inch)

## External Dimensions



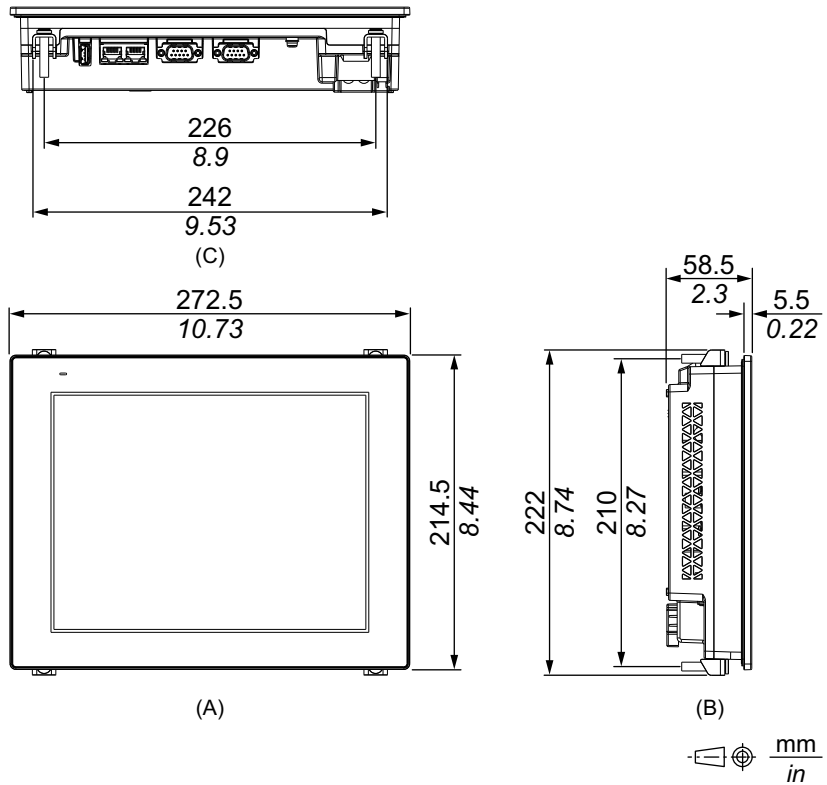
- A. Front
- B. Left
- C. Bottom

PFXGP6500TADFZ26



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

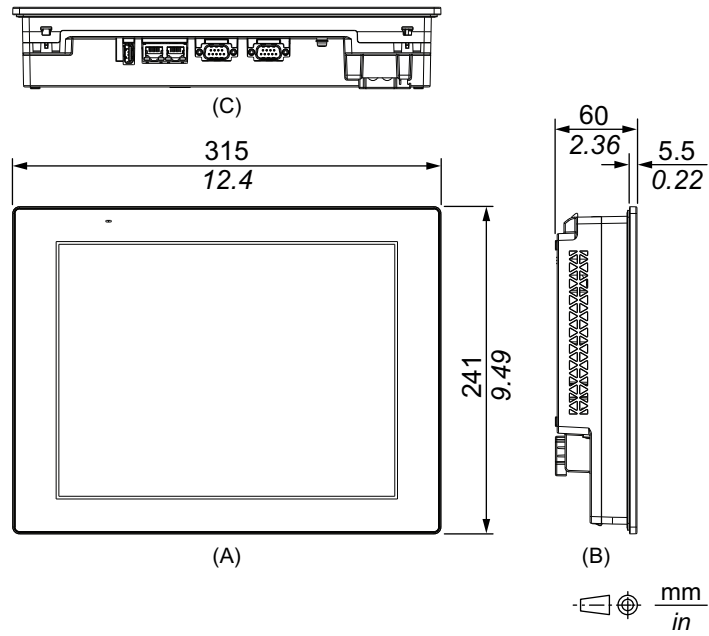
# Dimensions with Installation Fasteners



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

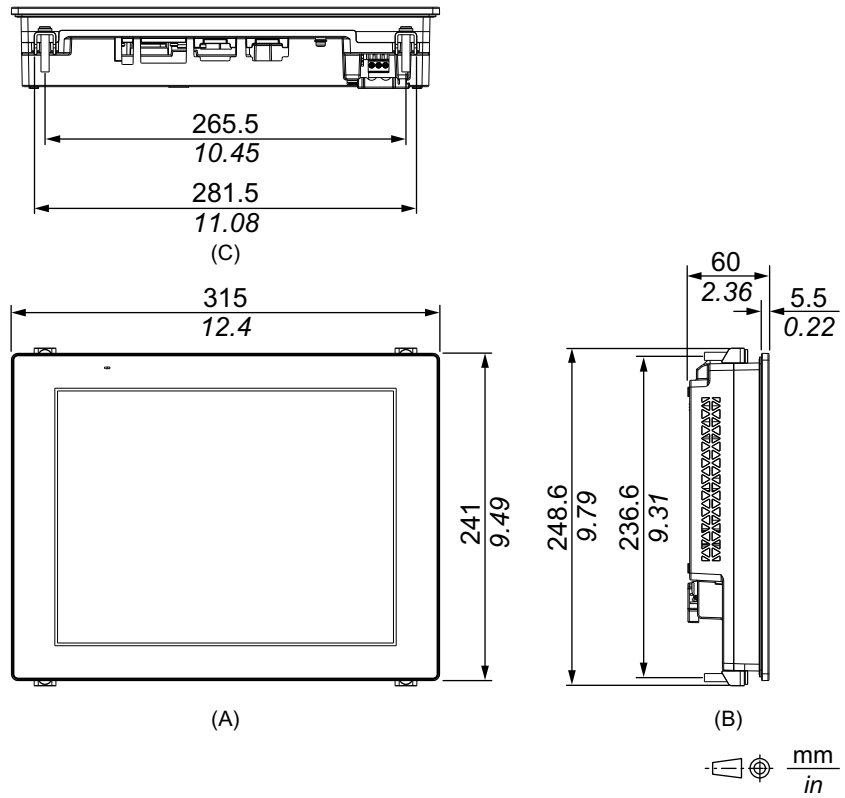
# External Dimensions (12-inch)

## External Dimensions



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

# Dimensions with Installation Fasteners



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

# Installation and Wiring

## What's in This Chapter

Installation .....	44
Wiring the Power Supply .....	50
USB Cable Clamp .....	57
SD Card Installation.....	59
Isolation Unit Installation Procedure .....	62

## Installation

### Precautions for Building into an End-use Product

This product is designed for use on flat surfaces of IP65F, UL 50/50E, Type 1, Type 4X (indoor use only), Type 12 and Type 13 enclosures.

Be aware of the following when building this product into an end-use product:

- The rear face of this product is not approved as an enclosure. When building this product into an end-use product, be sure to use an enclosure that satisfies standards as the end-use product's overall enclosure.
- Install this product in an enclosure with mechanical rigidity.
- This product is not designed for outdoor use. UL certification obtained is for indoor use only.
- Install and operate this product with its front panel facing outward.

**NOTE:**

- The necessary torque is 0.5 N•m (4.4 lb-in).
- IP65F is not part of the UL certification.

### Installation Requirements

#### **▲ CAUTION**

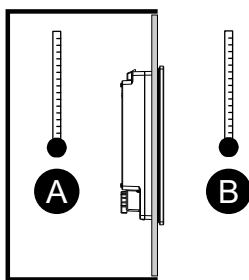
##### **RISK OF BURNING INJURY**

Do not touch the bezel or rear chassis during operation.

**Failure to follow these instructions can result in injury or equipment damage.**

- Check that the installation wall or cabinet surface is flat, in good condition and has no jagged edges. Metal reinforcing strips may be attached to the inside of the wall, near the panel cutout, to increase its rigidity.
- Decide on the thickness of the enclosure wall, based on the level of strength required. Even if the installation wall thickness is within the specified range, 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. For the specified wall thickness range, refer to Panel Cutout Dimensions, page 46.

- Check that the ambient air temperature and the ambient humidity are within their specified ranges in *Environmental Specifications*, page 28. When installing this product in a cabinet or enclosure, the ambient air temperature is the cabinet's or enclosure's internal and external temperature.

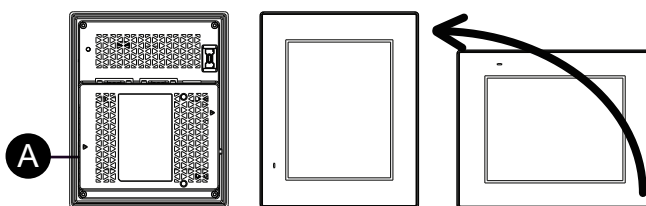


- A. Internal temperature
- B. External temperature

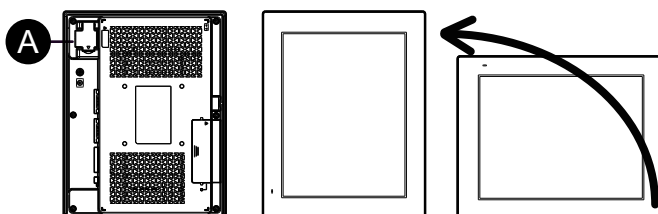
- Be sure that heat from surrounding equipment does not cause this product to exceed its standard operating temperature.
- When mounting this product in portrait orientation, ensure that the right side of this product faces up. In other words, for 5-inch and 7-inch models, the DC power connector should be at the bottom. For 10-inch and 12-inch models, the DC power connector or AC power terminal block should be at the top.

**NOTE:** For portrait orientation mounting, make sure your screen editing software supports the function.

5-inch/7-inch model

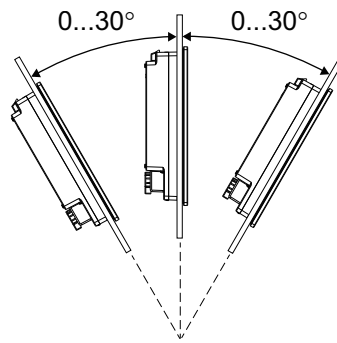


10-inch/12-inch model



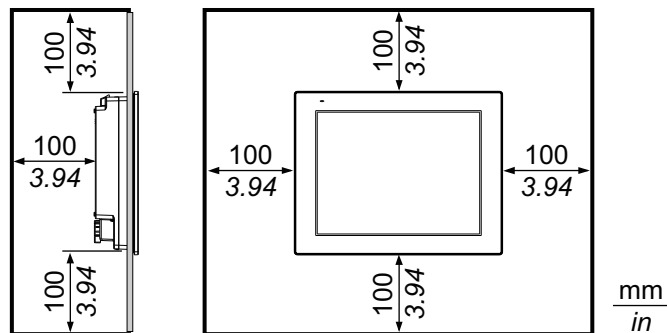
- A. Power connector or power terminal block

- When installing this product in a slanted position, the product face should not incline more than 30°.



- For easier maintenance, operation and improved ventilation, install this product at least 100 mm (3.94 in) away from adjacent structures and other equipment as shown in the following illustration:

**NOTE:** Ensure that you have enough space to insert and remove the external storage.



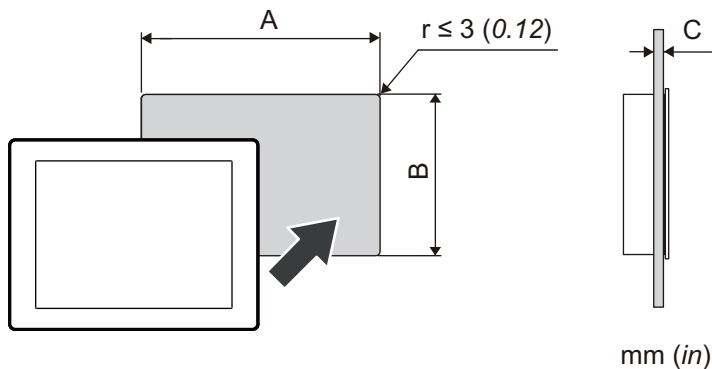
## Pressure Differences

When applying and installing this product, it is important that steps are taken to eliminate any pressure difference between the inside and the outside of the enclosure in which this product is mounted. Higher pressure inside the enclosure can cause delamination of the front membrane of the display. Even a small pressure difference inside the enclosure will act on the large area of the membrane and can result in sufficient force to delaminate the membrane and thus cause failure of the touch capability. Pressure differences can often occur in applications where there are multiple fans and ventilators moving air at different rates in different rooms. Please follow these techniques to ensure that this product's function is not impacted by this mis-application:

- Seal all conduit connections inside of the enclosure, especially those that lead to other rooms that may be at a different pressure.
- Where applicable, install a small weep hole at the bottom of the enclosure to allow equalization of the internal and external pressure.

## Panel Cutout Dimensions

This section lists the dimensions of the panel openings for installing the product.



- A. Width
- B. Height
- C. Panel thickness

The dimensional tolerance for the width and height of the panel cutout is +1/-0 mm (+0.04/-0 in). All the corners have a radius of R3 mm (R0.12 in) or less.

A	B	C
<b>5-inch</b>		
156 mm (6.14 in)	123.5 mm (4.86 in)	1.6...5 mm (0.06...0.2 in)
<b>7-inch</b>		
204.5 mm (8.05 in)	159.5 mm (6.28 in)	1.6...5 mm (0.06...0.2 in)
<b>10-inch</b>		
259 mm (10.2 in)	201 mm (7.91 in)	1.6...5 mm (0.06...0.2 in)
<b>12-inch</b>		
301.5 mm (11.87 in)	227.5 mm (8.96 in)	1.6...5 mm (0.06...0.2 in)

## Installation Procedure

This section describes how to install this product to the panel.

**⚠️ ⚠️ DANGER**

**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply prior to installing or removing the product.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.
- Replace and secure all covers or elements of the system before applying power to this product.
- Use only the specified voltage when operating this product. The DC model is designed to use 24 Vdc, and the AC model is designed to use 100 to 240 Vac. Always check whether your device is DC or AC powered before applying power.
- When using this product in Class I, Division 2, Groups A, B, C, and D hazardous locations, install this product in an enclosure that prevents the operator from touching the back of this product without the use of tools.

**Failure to follow these instructions will result in death or serious injury.**

## NOTICE

### EQUIPMENT DAMAGE

- Always use the installation gasket.
- Do not exert more torque than the amount specified.
- Keep this product stabilized in the panel cutout while you are installing or removing the screw fasteners.

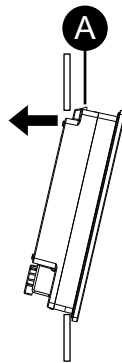
**Failure to follow these instructions can result in equipment damage.**

1. Check that this product's gasket is seated securely into the bezel's groove, which runs around the perimeter of the display panel frame.

**NOTE:** Always use the installation gasket, since it absorbs vibration in addition to repelling water. For the procedure on replacing the installation gasket, refer to *Replacing the Installation Gasket*, page 66.

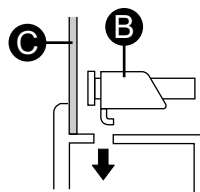
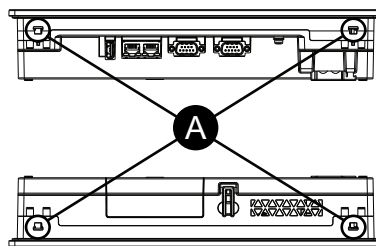
2. Based on this product's *Panel Cutout Dimensions*, page 46, open a mount-hole on the panel and attach this product to the panel from the front side.

**NOTE:** This product has a hook at the top to prevent it from falling. Insert the bottom part of the product into the panel opening, and then insert the top part while pushing the hook down.



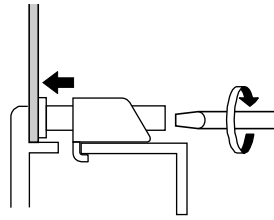
A. Hook

3. Insert the installation fastener hooks into the insertion slots of this product.



- A. Insertion slots  
 B. Installation fastener  
 C. Installation panel

- In a clockwise direction, tighten the installation fastener's screws with a screwdriver. The necessary torque is 0.5 N•m (4.4 lb-in).



## Removal Procedure

This section describes how to remove this product from the panel.

### **⚠️ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply prior to installing or removing the product.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.

**Failure to follow these instructions will result in death or serious injury.**

### **⚠️ CAUTION**

#### **RISK OF INJURY**

Do not drop this product when you remove it from the panel.

- Hold this product in place after removing the fasteners.
- Use both hands.
- While pushing on the hook, be careful not to hurt your fingers.

**Failure to follow these instructions can result in injury or equipment damage.**

### **NOTICE**

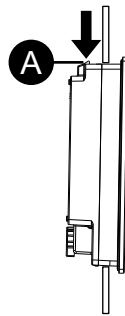
#### **EQUIPMENT DAMAGE**

- Keep this product stabilized in the panel cutout while you are installing or removing the screw fasteners.
- To avoid damage, remove this product while pushing the hook or by making sure the lock does not touch the panel.

**Failure to follow these instructions can result in equipment damage.**

- Loosen the screws of the installation fasteners and remove them.

2. While pushing the hook on the top of this product, slowly remove this product from the panel.



A. Hook

## Wiring the Power Supply

### AC/DC Power Cord Preparation

#### **⚡⚠ DANGER**

##### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

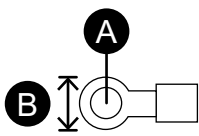
- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Remove power before wiring this product's power terminals.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.
- Replace and secure all covers or elements of the system before applying power to this product.
- Use only the specified voltage when operating this product. The DC model is designed to use 24 Vdc, and the AC model is designed to use 100 to 240 Vac. Always check whether your device is DC or AC powered before applying power.
- Since this product is not equipped with a power switch, be sure to connect a power switch to the power supply.
- Be sure to ground this product's PE/FG terminal.

**Failure to follow these instructions will result in death or serious injury.**

##### **NOTE:**


- The SG (signal ground) and PE/FG (protective earth/functional ground) terminals are connected internally in this product.
- When the PE/FG terminal is connected, be sure the wire is grounded. Not grounding this product can result in excessive electromagnetic interference (EMI).
- Make sure the ground wire is either the same or heavier gauge than the power wires.
- Do not use aluminum wires in the power supply's power cord.
- Use copper wire rated for 75 °C (167 °F) or higher.
- The conductor type of DC power cord is solid or stranded wire.

- If the ends of the individual wires are not twisted correctly, the wires may create a short circuit. When inserting a wire into the DC power connector, hold down the opening button and insert the wire while the internal spring is depressed. Alternatively, you can crimp and insert either a pin terminal or ferrule terminal.
- Use the SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy) circuit for DC input.
- Use a maximum 20 A branch circuit protective device for AC input.
- AC models obtain UL certification for use in environments rated at Overvoltage Category II or lower.

	AC power cord	Grounding wire
Power cord cross sectional area	Double-insulated wire 0.75...3.5 mm <sup>2</sup> (18...12 AWG)	2 mm <sup>2</sup> (14 AWG) or greater
Ring terminal size*1	 <p>A. <math>\Phi 4.3</math> mm (0.17 in) or more B. 7.2 mm (0.28 in) or less</p>	
Recommended ring terminal*2	V2-P4 V5.5-S4	

\*1 To prevent a short circuit caused by loose screws, use a crimp-type terminal with an insulating sleeve.

\*2 Items are manufactured by J.S.T Mfg. Co., Ltd.

DC power cord	
Power cord cross sectional area	0.75...3.5 mm <sup>2</sup> (18...12 AWG)*1
Conductor type	Solid or stranded wire
Conductor length (insulation stripping length)	10 mm (0.39 in)
	
Recommended screwdriver	Flat-head screwdriver (size 0.6 x 3.5 mm)
Recommended pin terminals*2	3201288 AI 0,75 -10 GY 3200182 AI 1 -10 RD 3200195 AI 1,5 -10 BK 3202533 AI 2,5 -10 BU
Recommended pin terminal crimp tool*2	CRIMPFOX 6

\*1 Thick wires are recommended to minimize voltage drops in the wire.

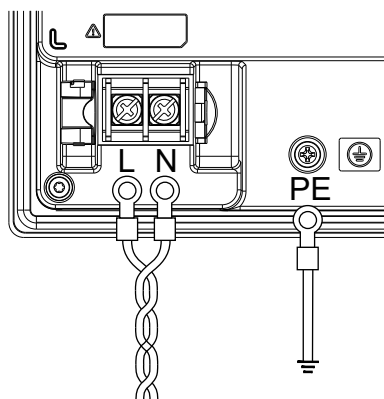
\*2 Items are manufactured by Phoenix Contact.

## How to Connect the AC Power Cord

1. Confirm the power cord is not connected to the power supply.
2. Open the terminal block cover.

- Remove the screws from the L, N, and PE terminals. Attach the ring terminals and reinsert the screws. Check each wire to make sure the connections are correct.

**NOTE:** The necessary torque is 1.4 N•m (12.4 lb-in).



- Close the terminal block cover.

## ⚡ ⚠ DANGER

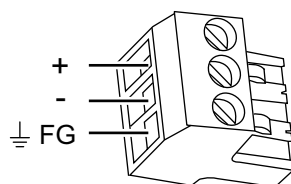
### HAZARD OF ELECTRIC SHOCK

- Be sure to close the terminal block cover after wiring.
- Do not touch a live power terminal.

**Failure to follow these instructions will result in death or serious injury.**

## How to Connect the DC Power Cord for 5-inch and 7-inch

### DC Power Connector



+	24 Vdc
-	0 Vdc
FG	Functional ground (Connect the FG terminal properly to ground.)

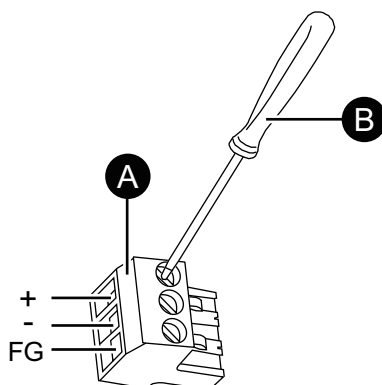
### Connection Procedure

- Confirm the power cord is not connected to the power supply.
- Check the rated voltage.
- Strip the membrane of the power cord, and twist the wire ends.

4. Insert each power cord wire into its corresponding hole. Fasten the screws of the DC power connector to clamp the wire in place.

**NOTE:**

- The necessary torque is 0.56 N•m (5 lb-in).
- Do not solder the cable connection.

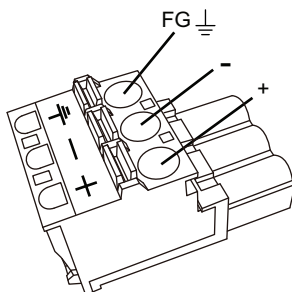


- A. DC power connector
- B. Flat-blade screwdriver (size 0.6 x 3.5 mm)

5. After inserting all three power cord wires, insert the DC power connector into the power connector on this product.

## How to Connect the DC Power Cord for 10-inch and 12-inch

### DC Power Connector



+	24 Vdc
-	0 Vdc
FG	Functional ground (Connect the FG terminal properly to ground.)

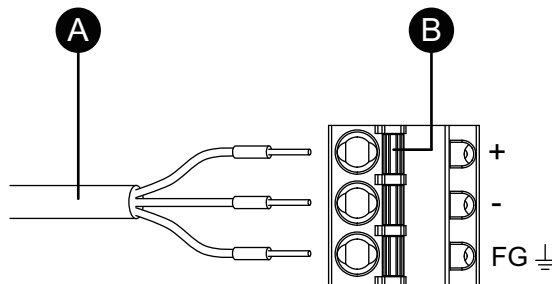
### Connection Procedure

1. Confirm the power cord is not connected to the power supply.
2. Check the rated voltage.
3. Push the opening button with a small and flat screwdriver to open the desired pin hole.

- Insert each power cord wire into its corresponding hole. Release the opening button to clamp the wire in place.

**NOTE:**

- When using stranded wire, do not short with neighboring wires.
- Do not solder the cable connection.



- A. Power cord  
B. Opening button

- After attaching the three power cord wires, open the power connector cover of the product and insert the DC power connector.
- Close the power connector cover.

## Power Supply Precautions

### **⚠ DANGER**

#### **SHORT CIRCUIT, FIRE, OR UNINTENDED EQUIPMENT OPERATION**

- Install and fasten this product in an installation panel or cabinet prior to connecting power supply and communication lines.
- Securely attach power cables to an installation panel or cabinet.
- Avoid excessive force on the power cable.

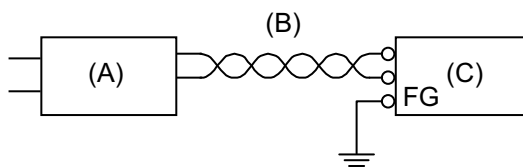
**Failure to follow these instructions will result in death or serious injury.**

- This product's power cord should not be bundled with or kept close to main circuit lines (high voltage, high current), power lines, or input/output lines, and their various systems should be kept separate. When power lines cannot be wired via a separate system, use shielded cables for input/output lines.
- An independent DC power supply is recommended on the DC model. (The DC power supply should be located close to the product.)
- If there is an excess amount of noise on the power supply line, reduce the noise with a noise filter before turning on the power.
- Connect a surge protection device to handle power surges.
- To increase noise resistance, attach a ferrite core to the power cable.

## Power Supply Connections

- Use the SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy) circuit for DC input.

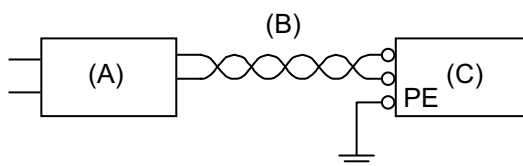
- If the voltage variation is outside the prescribed range, connect a regulated power supply.



- A. Regulated power supply
- B. Twisted-pair cord
- C. This product

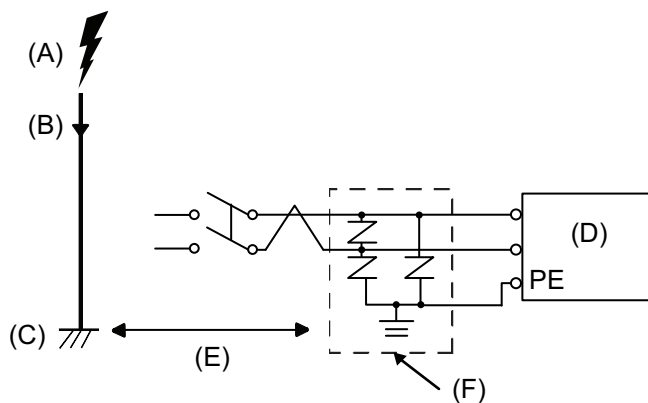
**For AC model**

- Select a power supply, low in noise, for between the line and ground. If there is an excess amount of noise, connect an insulating transformer. Use constant voltage and insulating transformers with capacities that exceed the Power Consumption value.



- A. Insulating transformer
- B. Twisted-pair cord
- C. This product

- The following shows a surge protection device connection:



- A. Lightning
- B. Lightning rod
- C. Ground
- D. This product
- E. Provide adequate distance
- F. Surge protection device

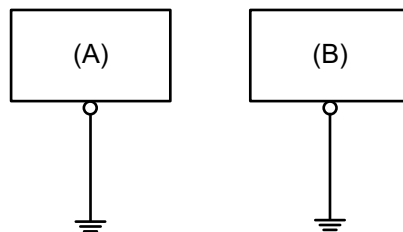
- Attach a surge protection device to prevent damage to this product as a result of a lightning induced power surge from a large electromagnetic field generated from a direct lightning strike. We also strongly recommend to connect the crossover grounding wire of this product to a position close to the ground terminal of the surge protection device.

It is expected that there will be an effect on this product due to fluctuations in grounding potential when there is a large surge flow of electrical energy to the lightning rod ground at the time of a lightning strike. Provide adequate distance between the lightning rod grounding point and the surge protection device grounding point.

## Grounding

### Independent Grounding

Always ground the PE/FG (protective earth/functional ground) terminal. Be sure to separate this product from the PE/FG of other devices as shown below.



- A. This product  
B. Other device

### Precautions

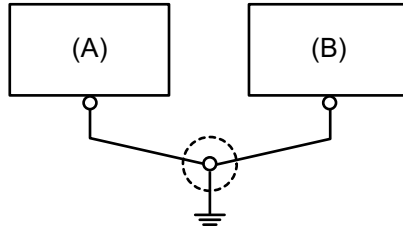
- Check that the grounding resistance is 100  $\Omega$  or less or your country's applicable standard.\*1
- The PE/FG wire should have a cross sectional area 2 mm<sup>2</sup> (14 AWG) or greater\*1. Create the connection point as close as possible to this product, and make the wire as short as possible. When using a long grounding wire, replace the thin wire with a thicker wire, and place it in a duct.
- The SG and PE/FG terminals are connected internally in this product. When connecting the SG line to another device, be sure that no ground loop is formed.

\*1 Observe local codes and standards.

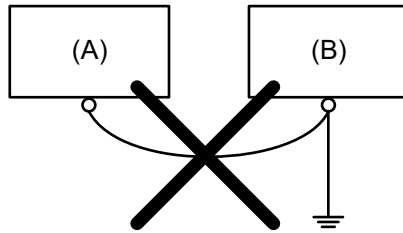
### Common Grounding

Electromagnetic Interference (EMI) can be created if devices are improperly grounded. EMI can cause loss of communication. If independent grounding is not possible, use a common grounding point as shown in the configuration below. Do not use any other configuration for common grounding.

Correct grounding



- A. This product
  - B. Other device
- Incorrect grounding



- A. This product
- B. Other device

## USB Cable Clamp


### Precautions for Connecting the USB Cable

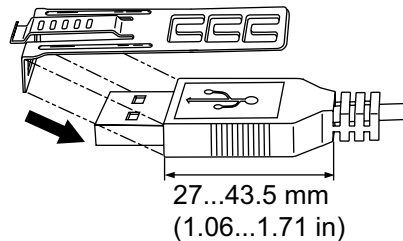
<b>⚠ WARNING</b>
<p><b>EXPLOSION HAZARD</b></p> <ul style="list-style-type: none"> <li>Verify the power, input, and output (I/O) wiring are in accordance with Class I, Division 2 wiring methods.</li> <li>Substitution of any components may impair suitability for Class I, Division 2.</li> <li>Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.</li> <li>Remove power before attaching or detaching any connectors to or from this product.</li> <li>Ensure that power, communication, and accessory connections do not place excessive stress on the ports. Consider the vibration in the environment when making this determination.</li> <li>Securely attach power, communication, and external accessory cables to the panel or cabinet.</li> <li>Use only commercially available USB cables.</li> <li>Use only non-incendive USB configurations.</li> <li>Suitable for use in Class I, Division 2, Groups A, B, C, D Hazardous Locations.</li> <li>Confirm that the USB cable has been attached with the USB cable clamp before using the USB interface.</li> </ul> <p><b>Failure to follow these instructions can result in death, serious injury, or equipment damage.</b></p>

## Attaching USB Clamp Type-A

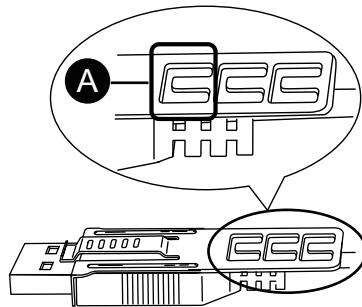
When using a USB device, attach a USB cable clamp to the USB interface to prevent the USB cable from being disconnected.

**NOTE:** Watch your fingers. The edge of the clip is sharp.

1. Mount the clip to the USB mark  connector shell so that it overlaps. The clip matches the 27 to 43.5 mm (1.06 to 1.71 in) length of the USB connector.

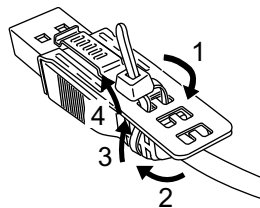


2. Align the clip and the USB cable connector shell. Adjust the position of the holes where the clip is attached. To ensure stability, select the clip-hole position that is closest to the base of the connector shell.



A. Hole for tie to pass through

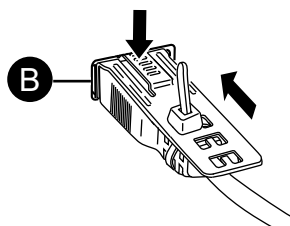
3. As shown, pass the tie through the clip hole. Next, turn the tie and pass it through the head so that the USB cable can pass through the center of the tie loop. The clip is now attached to the USB cable.



**NOTE:**

- Check the direction of the head beforehand. Make sure the USB cable is through the center of the tie loop and that the tie can pass through the head.
- You can substitute the tie provided with PFXZCBCLUSA1, or other commercially available ties with a width of 4.8 mm (0.19 in) and thickness of 1.3 mm (0.05 in).

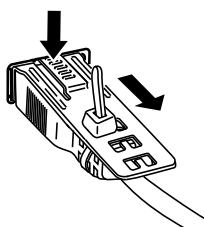
4. While pressing the grip on the clip, insert the cable from step 3 all the way into the USB host interface. Make sure that the clip tab is secured to the USB cable attached to this product.



B. USB Type-A interface

## Removing USB Clamp Type-A

Remove the USB cable while pushing the grip section of the clip.



## SD Card Installation

### Precaution When Handling the SD Card

#### **NOTICE**

##### **LOSS OF DATA**

When using a SD card:

- Make sure you regularly back up the SD card data.
- While a SD card is accessed, do not turn off or reset this product, and do not remove the SD card.
- Before removing the SD card from this product, stop all operations on the SD card.
- Make sure of the SD card's orientation before inserting it into the SD card slot.

**Failure to follow these instructions can result in equipment damage.**

## NOTICE

### LOSS OF DATA

When handling the SD card:

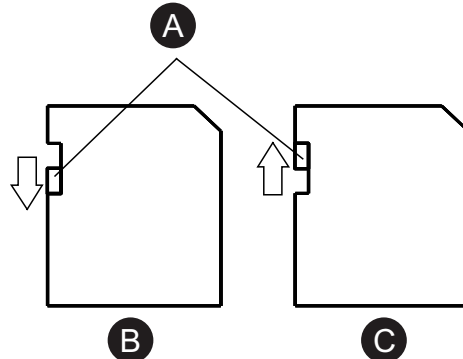
- Avoid storing the SD card where there is static electricity or electromagnetic waves.
- Avoid storing the SD card in direct sunlight, near a heater, or other locations where high temperatures can occur.
- Do not bend the SD card.
- Do not drop or strike the SD card against another object.
- Keep the SD card dry.
- Do not touch the SD card connectors.
- Do not disassemble or modify the SD card.
- Use only SD cards formatted with the specified file system.

**Failure to follow these instructions can result in equipment damage.**

The file systems that this product supports are FAT, FAT32, and exFAT. This product does not recognize external storage formatted with NTFS.

## Inserting the SD Card

**NOTE:** As shown in the image below (example on the left-hand side), you can set the Write-Control Tab to prevent write operations to the SD card. Push the tab up, as shown in the example on the right-hand side, to release the lock and enable writing to the SD card. Before using a commercial-type SD card, read the manufacturer's instructions.



A. Write-control tab

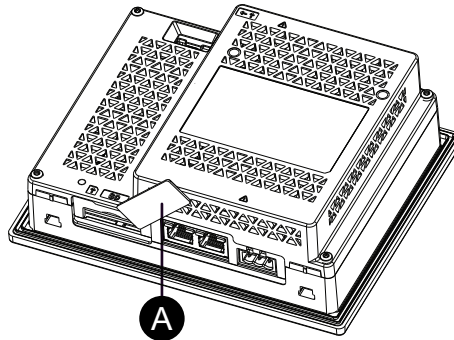
B. Write disabled (enable to read)

C. Write enabled

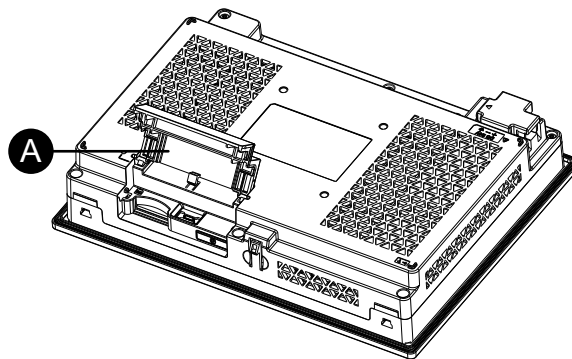
1. Touch the housing or ground connection (not the power supply) to discharge any electrostatic charge from your body.

2. Open the cover.

5-inch/7-inch model: The cover for the SD card slot is on the bottom part of the product.

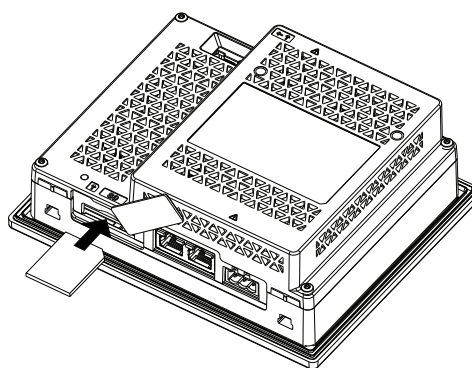


10-inch/12-inch model: The cover for the SD card slot, USB micro-B interface, and battery slot is on the top part of the product.



A. Cover

3. Insert the SD card into the SD card slot with the front face of the SD card facing up, and push until you hear it "click".



4. Close the cover.

## Removing the SD Card

If you remove the SD card while it is in use, you risk corrupting the data. Before removing the SD card from this product, stop all operations on the SD card.

1. Make sure the SD card Access LED is off.
2. Open the SD card slot cover.

3. Push the SD card once to release, then pull out the card.

**NOTE:** After using the SD card, store the SD card in its case or in another safe location.

4. Close the SD card slot cover.

## Isolation Unit Installation Procedure

You can install the Isolation Unit to the back of this product or to the installation panel. For details such as settings when using the Isolation Unit, refer to the product manual.

### **DANGER**

#### **HAZARD OF ELECTRIC SHOCK OR EXPLOSION**

Prior to connecting the Isolation Unit to this product, confirm that this product's power supply is completely turned OFF.

**Failure to follow these instructions will result in death or serious injury.**

### **NOTICE**

#### **EQUIPMENT DAMAGE**

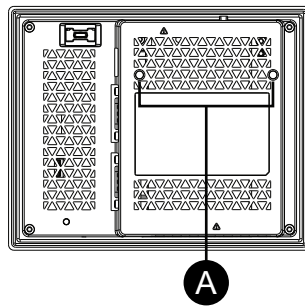
Do not exert more torque than the amount specified.

**Failure to follow these instructions can result in equipment damage.**

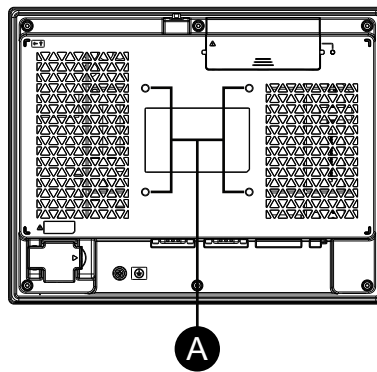
#### **NOTE:**

- Install the Isolation Unit to a stable surface.
- Do not leave the Isolation Unit hanging by its cord.
- Be careful with wire placement. Overlapping cords may cause noise.

1. Check the locations of two screw holes on the rear of this product.  
5-inch/7-inch model

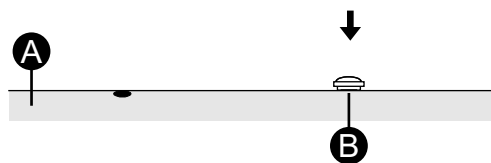


10-inch/12-inch model



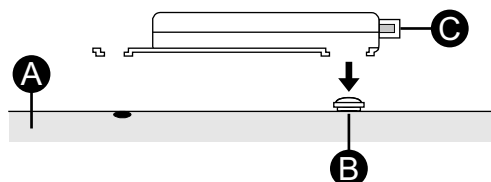
A. Screw holes

2. Install one of the two attachment screws included in the Isolation Unit to this product. Use a torque of 0.5 N•m (4.4 lb-in).



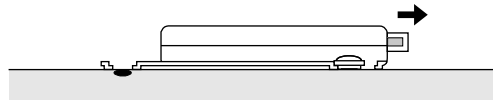
A. This product  
B. Attachment screw

3. Attach the Isolation Unit to this product.

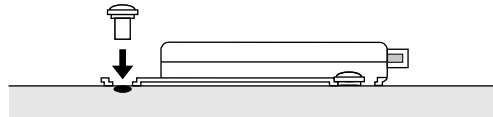


A. This product  
B. Attachment screw  
C. Isolation unit

- Slide the Isolation Unit in the direction of the arrow so the Isolation Unit is hooked by the screw from Step 2.



- Secure the Isolation Unit in place with another attachment screw. Use a torque of 0.5 N•m (4.4 lb-in).



# Maintenance

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## Regular Cleaning

### Cleaning This Product

#### **NOTICE**

##### **EQUIPMENT DAMAGE**

- Power off this product before cleaning it.
- Do not use hard or pointed objects to operate the touch panel.
- Do not use paint thinner, organic solvents, or a strong acid compound to clean the unit.

**Failure to follow these instructions can result in equipment damage.**

When this product gets dirty, wipe this product with a soft, dry cloth or a soft cloth soaked in only water and wrung tightly.

**NOTE:** When the product is very dirty, soak the soft cloth in water with a neutral detergent, wring the cloth tightly and wipe the product while avoiding the product label.

## Periodic Check Points

### Operation Environment

- Is the ambient air temperature within the allowable range? Refer to Environmental Specifications, page 28.
- Is the ambient air humidity within the specified range? Refer to Environmental Specifications, page 28.
- Is the operating atmosphere free of corrosive gasses?

When this product is inside a panel, the ambient environment refers to the interior of the panel.

## Electrical Specifications

- Is the input voltage appropriate? Refer to Electrical Specifications, page 27.
- Are all power cords and cables connected properly? Are there any loose cables?
- Are all installation fasteners holding the unit securely?
- Are there scratches or traces of dirt on the installation gasket?

## Unit Disposal

When disposing this product, dispose it in a manner appropriate to, and in accordance with, your country's industrial machinery disposal/recycling standards.

## Replacing the Installation Gasket

The installation gasket provides protection against dust and moisture. The gasket must be inserted correctly into the groove for moisture resistance for this product.

### **NOTICE**

#### **EQUIPMENT DAMAGE**

- Inspect the gasket periodically as required by your operating environment.
- Replace the gasket at least once a year, or as soon as scratches or dirt become visible.

**Failure to follow these instructions can result in equipment damage.**

### **NOTICE**

#### **EQUIPMENT DAMAGE**

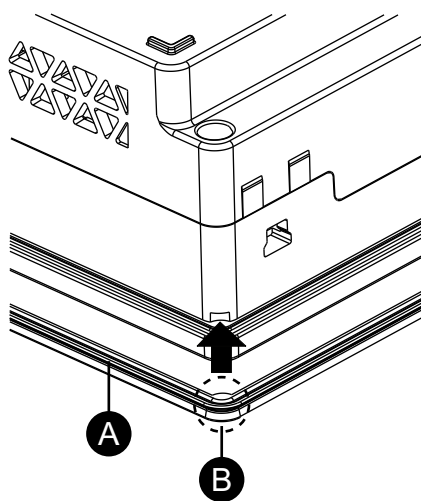
Be careful not to stretch the gasket unnecessarily.

**Failure to follow these instructions can result in equipment damage.**

#### **Installation gasket replacement procedure**

1. Place the product face down on a clean, flat, level surface.
2. Remove the gasket from this product.
3. Attach the new gasket to the display module. Insert the protrusions from the four corners of the gasket into the corresponding holes in the corners of this product.

**NOTE:** When using a tool to insert the gasket, make sure the tool does not catch the rubber gasket and cause a tear.



A. Installation gasket

B. Protruding point

# Replacing the Battery

This product uses a primary (non-rechargeable) battery for data backup of the internal clock. If the battery is depleted, the clock data will be lost. Use only the BR2032 (manufactured by Panasonic Corporation) battery as a replacement.

## **DANGER**

### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Follow the procedures step by step to replace the battery correctly and safely.
- Before replacing the battery, turn off this product's power.

**Failure to follow these instructions will result in death or serious injury.**

## **DANGER**

### **EXPLOSION, FIRE, OR CHEMICAL HAZARD**

- Use only the identical replacement battery for this product.
- Do not cause a short circuit.
- Recycle or properly dispose of used batteries.
- Do not recharge, disassemble or heat above 80 °C (176 °F).
- Use your hands or insulated tools to remove or replace the battery.
- Maintain proper polarity when inserting and connecting a new battery.

**Failure to follow these instructions will result in death or serious injury.**

## **NOTICE**

### **LOSS OF DATA**

- Replace the battery regularly every five years after you purchase this product.
- Insert the battery before reconnecting the power supply.
- Allow only qualified personnel to replace the battery.

**Failure to follow these instructions can result in equipment damage.**

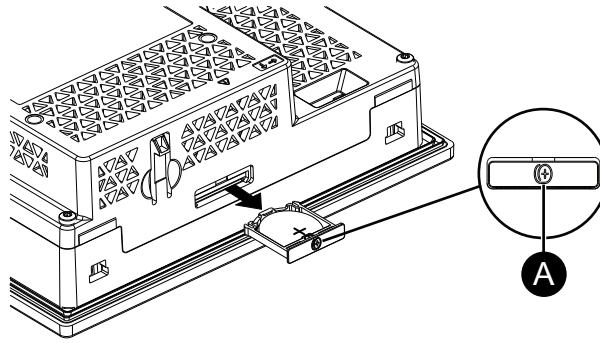
### **NOTE:**

- Insert the battery before reconnecting the power supply. Otherwise, the clock will not work properly.
- After reconnecting the power supply, set up the clock again. Refer to your screen editing software manual on how to set up the clock.

### **Battery replacement procedure**

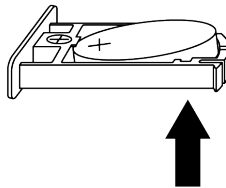
1. Disconnect the power supply from this product.
2. Touch the housing or ground connection to discharge any electrostatic charge from your body.
3. Place the product face down on a clean, flat, level surface.

4. Insert a flat head screwdriver into the groove of the battery slot to pull it out.



A. Battery symbol

5. Remove the spent battery from the tray by touching the battery from the bottom.



6. Put the new battery on the tray in accordance with the polarity markings in the tray and on the battery.
7. Insert the tray into the battery slot.
8. Reconnect the power supply to this product.

## After-sales Service

For details on after-sales service, refer to our website.

<https://www.pro-face.com/trans/en/manual/1015.html>



Schneider Electric Japan Holdings Ltd.

4-4-9 Kitahama, Chuo-ku  
Osaka, 541-0041 Japan

+ 81 (0) 50 4561 4800

[www.pro-face.com](http://www.pro-face.com)

As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

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