# Display Module - Premium Display



| SP-5800WC | SP-5700WC | SP-5700TP | SP-5660TP | SP-5600TP | SP-5500TP |
|---|---|---|---|---|---|
| 19"wide FWXGA | 15"wide FWXGA | 15" XGA | 12" XGA (Built-in Wireless LAN model) | 12" XGA | 10" SVGA |
| Model: PFXSP5800WCD | Model: PFXSP5700WCD | Model: PFXSP5700TPD | Model: PFXSP5660TPD | Model: PFXSP5600TPD | Model: PFXSP5500TPD |

**SP5000 Series is a combined unit of Display Module and Box Module.**
**The power consumption or weight for the combined unit equals each sum of power consumption or weight of the two modules.**

## ■ Model Number Configuration

### Display Module

PFXSP5 * * * * * D
(1) (2) (3) (4) (5)

| | (1) Size | | (2) Wireless LAN | | (3) Resolution | | (4) Touch Panel | | (5) Power Supply | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 19" | 60 | Yes | T | TFT | C | Projected Capacitive (5 points multi-touch) | D | DC |
| 7 | 15" | 00 | - | W | Wide TFT | P | Resistive Film (analog, 2 points multi-touch) | | |
| 6 | 12" | | | | | A | Resistive Film (analog, single-touch) | | |
| 5 | 10" | | | | | | | | |
| 4 | 7" | | | | | | | | |

*Color selectable display modules are available. In addition to Silver, there are three optional colors
Coated models are also available as a customized product. (SP-5800WC and SP-5700WC excluded)

Black    Beige    Off-white

✕

**SP-5800WC, SP-5700WC are not compatible with SP-5B40 (End of Sale: Mar. 30, 2018).**
**SP-5660TP is not supported for SP-5B10 (Power BOX) and SP-5B00 (Standard Box).**

### Box Module

PFXSP5 B * *
(6) (7)

| | (6) Module Type | (7) Class | |
|---|---|---|---|
| B | Box | 41 | Open |
| | | 10 | Power |
| | | 00 | Standard |

*Coated models are also available as a customized product.

## ■ Display Specifications

| | Premium Display | | | | | |
|---|---|---|---|---|---|---|
| | SP-5800WC | SP-5700WC | SP-5700TP | SP-5660TP | SP-5600TP | SP-5500TP |
| Display Type | TFT color LCD | | | | | |
| Display Size | 19" wide | 15" wide | 15" | 12" | | 10" |
| Resolution | 1,366 x 768 pixels (FWXGA) | | 1,024 x 768 pixels (XGA) | | | 800 x 600 pixels (SVGA) |
| Auto Scaling | Yes | | | | | |
| Effective Display Area | W409.8 x H230.4mm (W16.13 x H9.07 in) | W344.2 x H193.5mm (W13.55 x H7.62 in) | W304.1 x H228.1mm (W11.97 x H8.98 in.) | W245.8 x H184.3mm (W9.68 x H7.26 in.) | | W211.2 x H158.4mm (W8.31 x H6.24 in.) |
| Display Colors | 16 million colors | | | | | |
| Backlight | White LED (Not user replaceable. When replacement is required, contact your local Pro-face distributor.) | | | | | |
| 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) | | | | | |
| Brightness Sensor | Yes | | | | | |
| Front USB Interface | Yes | | | | | |
| Touch Panel Type | Projected Capacitive (5 points multi-touch) | | Resistive Film (analog, 2 points multi-touch) | | | |
| Touch Panel Resolution | 2,048 x 2,048 | | 1,024 x 1,024 | | | |
| Touch Panel Service Life | 50 million times or more | | 1 million times or more | | | |

## ■ Electrical Specifications

| | | Premium Display | | | | | |
|---|---|---|---|---|---|---|---|
| | | SP-5800WC | SP-5700WC | SP-5700TP | SP-5660TP | SP-5600TP | SP-5500TP |
| Rated Input Voltage | | 12...24 Vdc | | | | | |
| Input Voltage Limits | | 10.8...28.8 Vdc | | | | | |
| Voltage Drop | | 12 Vdc : 1.25 ms or less    24 Vdc: 5 ms or less | | | | | |
| Power Consumption [*1] | Max | 19 W | 17 W | 22 W | 23 W | 21 W | 15 W |
| | When power is not supplied to devices via front USB | 16 W or less | 14 W or less | 19 W or less | 20 W or less | 18 W or less | 12 W or less |
| | When screen turns off the backlight (Standby Mode) | 8 W or less | 6 W or less | 6 W or less | 8 W or less | 6 W or less | 6 W or less |
| | When screen backlight 20% | 9 W or less | 8 W or less | 11 W or less | 13 W or less | 11 W or less | 8 W or less |
| In-Rush Current | | 30 A or less | | | | | |
| Noise Immunity | | Noise voltage: 1,000 Vp-p, pulse duration: 1 µs, rise time: 1 ns (via noise simulator) | | | | | |
| Voltage Endurance | | 1,000 Vac, 20 mA for 1 minute (between charging and FG terminals) | | | | | |
| Insulation Resistance | | 500 Vdc, 10 MΩ or more (between charging and FG terminals) | | | | | |

*1 Power Consumption for Display Module only.

# Display Module - Premium Display

## ■ Environmental Specification

| | | Premium Display | | | | |
|---|---|---|---|---|---|---|
| | | SP-5800WC | SP-5700WC | SP-5700TP | SP-5660TP | SP-5600TP | SP-5500TP |
| Surrounding Air Temperature | 0...55 °C (32...131 °F) | | 0...60 °C (32...140 °F) | | | |
| Storage Temperature | -20...60 °C (-4...140 °F) | | | | | |
| Surrounding Air and Storage Humidity | 10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less) | | | | | |
| Dust | 0.1 mg/m3 (10-7 oz/ft3) or less (non-conductive levels) | | | | | |
| Pollution Degree | For use in Pollution Degree 2 environment | | | | | |
| Corrosive Gases | Free of corrosive gases | | | | | |
| Atmospheric Pressure (Operating Altitude) | 800...1,114 hPa (2,000 m [6,561 ft] or lower) | | | | | |
| Vibration Resistance | IEC/EN 61131-2 compliant<br>5...9 Hz Single amplitude 3.5 mm (0.14 in.)<br>9...150 Hz Fixed acceleration: 9.8 m/s2<br>X, Y, Z directions for 10 cycles (approx. 100 min.) | | | | | |
| Shock Resistance | IEC/EN 61131-2 compliant<br>147 m/s2, X, Y, Z directions for 3 times | | | | | |
| Electrical fast transient/burst | IEC 61000-4-4<br>2 kV: Power port (display unit)<br>1 kV: Signal ports | | | | | |
| Electrostatic Discharge Immunity | Contact Discharge Method: 6 kV (IEC/EN 61000-4-2 Level 3) | | | | | |

## ■ Interface Specification

| | | Premium Display | | | | |
|---|---|---|---|---|---|---|
| | | SP-5800WC | SP-5700WC | SP-5700TP | SP-5660TP | SP-5600TP | SP-5500TP |
| Wireless LAN | - | - | - | Yes | - | - |
| USB（Type A）*2 | Connector: USB 2.0 (Type A) x 1,<br>Power Supply Voltage: 5 Vdc ±5 %, Maximum Current Supplied: 500 mA, Maximum Transmission Distance: 5 m (16.4 ft) | | | | | |
| USB （mini B） | Connector: USB 2.0 (mini B) x 1,<br>Maximum Transmission Distance: 5 m (16.4 ft) | | | | | |

*2  When using the Display Module with the Power Box, you can connect only one of each type of USB device, such as one USB flash drive, one transfer cable, or one bar code reader. If you connect multiple devices that are the same type, only the first device will work.

## ■ Wireless LAN Specification (Only for SP-5660TP)*3 *4

| | |
|---|---|
| Standards | IEEE802.11b/IEEE802.11g/IEEE802.11n |
| Frequency Bandwidth | 2.4 GHz |
| Channel Bandwidth | 20 MHz |
| Channel | Access Point mode*5: 1...11ch<br>Client mode*6:<br>North America US: 1...11 ch, Japan JP: 1...13 ch, Europe EU: 1...13 ch, Korea KR: 1...13 ch, China CN:1...13 ch, Taiwan TW: 1...11 ch |
| Transmission Speed | IEEE802.11b：max 11Mbps, IEEE802.11g：max 54 Mbps, IEEE802.11n：max 72.2 Mbps |
| Action Mode | Client mode/Access Point mode |
| Communication Mode | Infrastructure |
| Network Authentication | Open, WPA-Personal, WPA2-Personal |
| Data Encryption | WEP (128 bit)(Open)*7, AUTO/TKIP (WPA-Personal), AES (WPA2-Personal) |
| Maximum Client Connections | 10 |
| Transmission Distance | You can connect only from the front of the display. The connection angle and distance depend on your operating environment, applications in use, and target communication devices. Conduct an operation test, including directivity, in the operating environment before use. |

*3  Use Wireless LAN in a configuration with Open Box Module combined.
*4  Do not use wireless communication for operation of device units. It's necessary to consider possibilities of communication interference.
*5  In Access Point mode, IEEE802.11d is not supported.
*6  If the surrounding access points do not support IEEE802.11d, channels are limited, from 1 to 11 ch.
*7  In Access Point mode, WEP is not supported.

## ■ Structural Specification

| | | Premium Display | | | | |
|---|---|---|---|---|---|---|
| | | SP-5800WC | SP-5700WC | SP-5700TP | SP-5660TP | SP-5600TP | SP-5500TP |
| Grounding | Functional grounding: Grounding resistance of 100 Ω, 2 mm2 (AWG 14) or thicker wire, or<br>your country's applicable standard (same for FG and SG terminals). | | | | | |
| Cooling Method | Natural air circulation | | | | | |
| Structure *8 | When using a factory-installed front USB cover: IP65F, IP67F.<br>When using a front USB cover option (PFXZCDCVUS1): IP66F, IP67F, Type 4X (Indoor Use Only)/13<br>* The front face of this product when properly installed in an enclosure and not using the front panel USB port. | | | | | |
| External Dimensions | W483 x H337 x D69 mm (W19.02 x H13.27 x D2.72 in.) | W414 x H295 x D69 mm (W16.30 x H11.61 x D2.72 in.) | W397 x H296 x D67 mm (W15.6 x H11.7 x D2.64 in.) | W315 x H241 x D67 mm (W12.4 x H9.49 x D2.64 in.) | | W272.5 x H214.5 x D67 mm (W10.73 x H8.44 x D2.64 in.) |
| Panel Cut Dimensions *9 | W465 x H319 mm (W18.31 x H12.56 in.) | W396 x H277 mm (W15.59 x H10.91 in.) | W383.5 x H282.5mm (W15.1 x H11.12 in.) | W301.5 x H227.5 mm (W11.87 x H8.96 in.) | | W259 x H201 mm (W10.2 x H7.91 in.) |
| Weight *10 | 6.8 kg (15.0 lb) or less | 5 kg (11.0 lb) or less | 4.5 kg (9.9 lb) or less | 3.2 kg (7.1 lb) or less | | 2.7 kg (5.9 lb) or less |

*8  The front face of this product, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification.
*9  For dimensional tolerance, everything +1/-0mm (+0.04/-0 in.) and R in angle are below R3 (R0.12 in.)
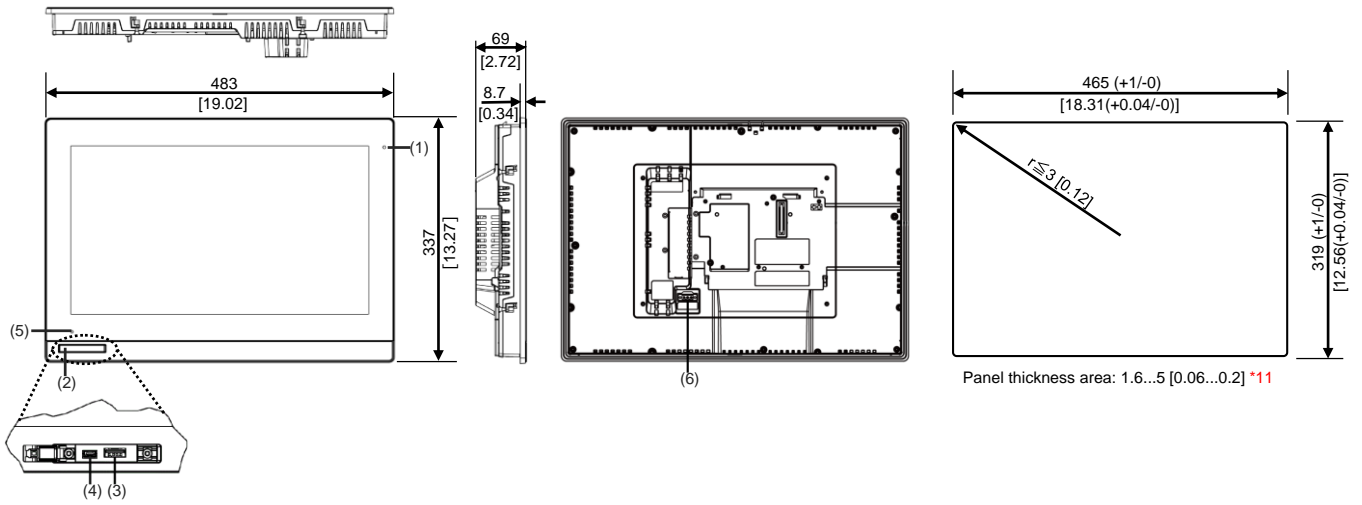*10  Weight for Display Module only
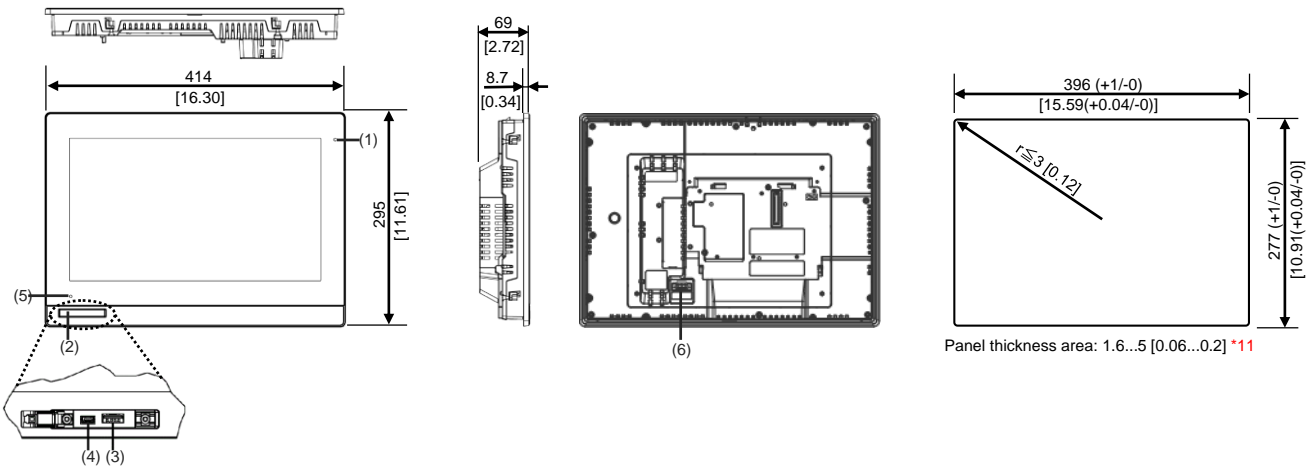
# Display Module - Premium Display

## ■ External Dimensions / Parts Identification / Panel Cut Dimensions

### SP-5800WC

mm [in.]

69
[2.72]

8.7
[0.34]

483
[19.02]

337
[13.27]

(1)

(5)

(2)

(4) (3)

(6)

465 (+1/-0)
[18.31(+0.04/-0)]

r≦3 [0.12]

319 (+1/-0)
[12.56(+0.04/-0)]

Panel thickness area: 1.6...5 [0.06...0.2] *11

### SP-5700WC

69
[2.72]

8.7
[0.34]

414
[16.30]

295
[11.61]

(1)

(5)

(2)

(4) (3)

(6)

396 (+1/-0)
[15.59(+0.04/-0)]

r≦3 [0.12]

277 (+1/-0)
[10.91(+0.04/-0)]

Panel thickness area: 1.6...5 [0.06...0.2] *11

(1)Brightness Sensor   (2)Front USB Cover   (3)USB (Type A) Interface   (4)USB (mini B) Interface   (5)Status LED   (6)Power Supply Connector
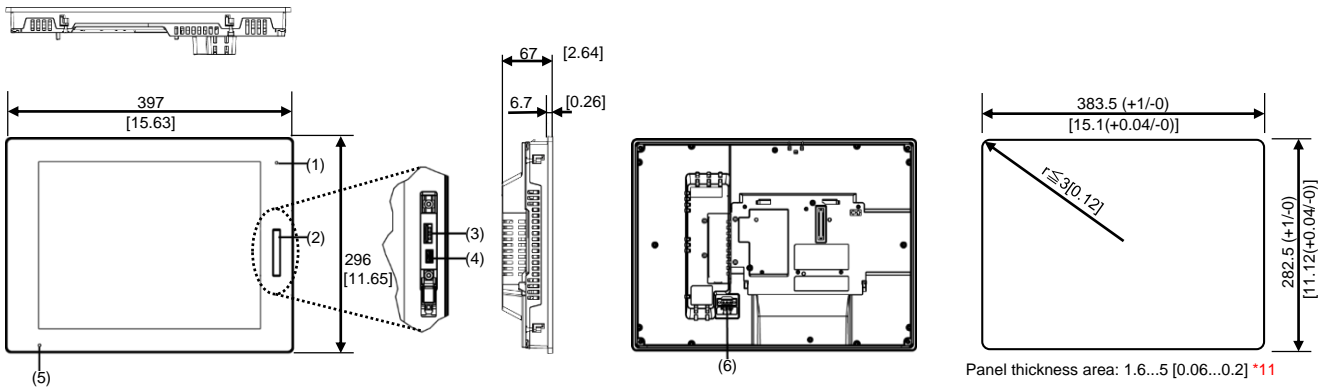
*11   Even if the installation wall thickness is within the recommended range for the "Panel Cut Dimensions", depending on wall's material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.
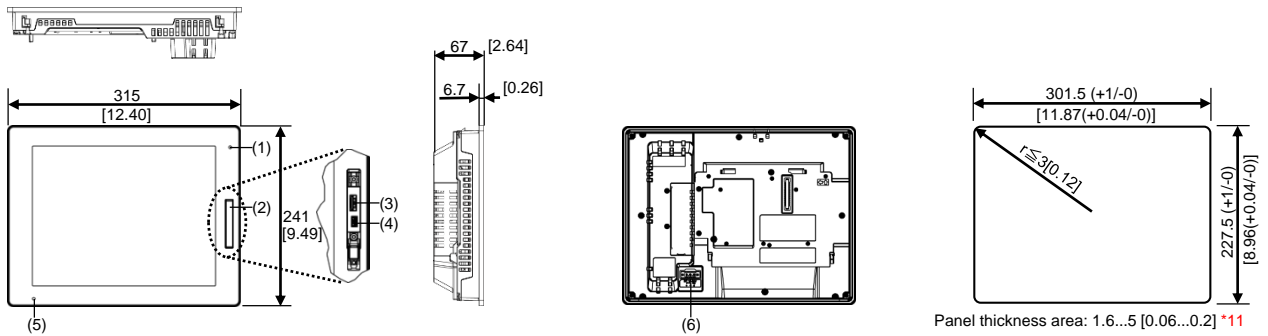
# Display Module - Premium Display

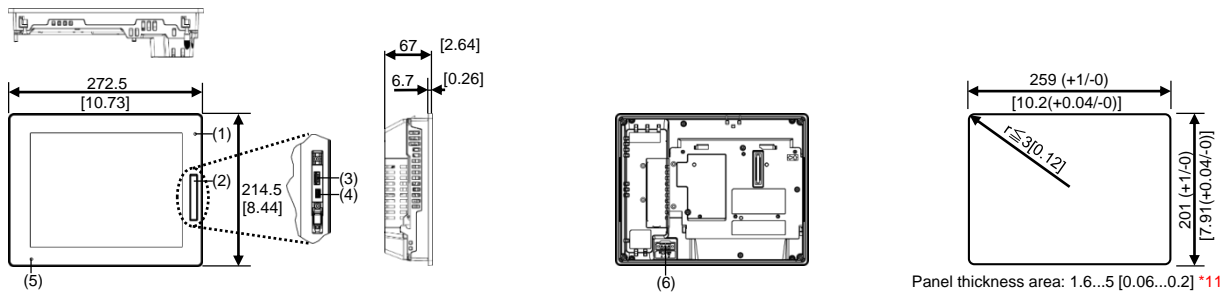## ■ External Dimensions / Parts Identification / Panel Cut Dimensions

### SP-5700TP

mm [in.]



397
[15.63]

67 [2.64]

6.7 [0.26]

(1)
(2)
(3)
(4)
(5)
(6)

296
[11.65]

383.5 (+1/-0)
[15.1(+0.04/-0)]

r≦3[0.12]

282.5 (+1/-0)
[11.12(+0.04/-0)]

Panel thickness area: 1.6...5 [0.06...0.2] *11

### SP-5660TP / SP-5600TP



315
[12.40]

67 [2.64]

6.7 [0.26]

(1)
(2)
(3)
(4)
(5)
(6)

241
[9.49]

301.5 (+1/-0)
[11.87(+0.04/-0)]

r≦3[0.12]

227.5 (+1/-0)
[8.96(+0.04/-0)]

Panel thickness area: 1.6...5 [0.06...0.2] *11

### SP-5500TP



272.5
[10.73]

67 [2.64]

6.7 [0.26]

(1)
(2)
(3)
(4)
(5)
(6)

214.5
[8.44]

259 (+1/-0)
[10.2(+0.04/-0)]

r≦3[0.12]

201 (+1/-0)
[7.91(+0.04/-0)]

Panel thickness area: 1.6...5 [0.06...0.2] *11

(1)Brightness Sensor  (2)Front USB Cover  (3)USB (Type A) Interface  (4)USB (mini-B) Interface  (5)Status LED  (6)Power Supply Connector

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

# Display Module - Advanced Display



| | | | |
|---|---|---|---|
| **SP-5600TA**<br>Model: PFXSP5600TAD | **SP-5600WA**<br>Model: PFXSP5600WAD | **SP-5500WA**<br>Model: PFXSP5500WAD | **SP-5400WA**<br>Model: PFXSP5400WAD |

> SP5000 Series is a combined unit of Display Module and Box Module.
> The power consumption or weight for the combined unit equals each sum of power consumption or weight of the two modules.

## ■ Model Number Configuration

### Display Module

PFXSP5 \* \* \* \* \* D
(1) (2) (3) (4) (5)

| (1) Size | | (2) Wireless LAN | | (3) Resolution | | (4) Touch Panel | | (5) Power Supply | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | 19" | 60 | Yes | T | TFT | C | Projected Capacitive (5 points multi-touch) | D | DC |
| 7 | 15" | 00 | – | W | Wide TFT | P | Resistive Film (analog, 2 points multi-touch) | | |
| 6 | 12" | | | | | A | Resistive Film (analog, single-touch) | | |
| 5 | 10" | | | | | | | | |
| 4 | 7" | | | | | | | | |

Touch Panel color options: Black | Beige | Off-white

*Color-selectable display modules are available. In addition to Silver, there are three optional colors.
Coated models are also available as a customized product.

SP-5600TA are not compatible with SP-5B40 (End of Sale: Mar. 30, 2018).

✕

### Box Module

PFXSP5 B \* \*
(6) (7)

| | (6) Module Type | (7) Class | |
|---|---|---|---|
| B | Box | 41 | Open |
| | | 10 | Power |
| | | 00 | Standard |

*Coated models are also available as a customized product.

## ■ Display Specifications

| | Advanced Display | | | |
|---|---|---|---|---|
| | SP-5600TA | SP-5600WA | SP-5500WA | SP-5400WA |
| Display Type | TFT color LCD | | | |
| Display Size | 12.1" | 12" wide | 10" wide | 7" wide |
| Resolution | 1,024 x 768 pixels (XGA) | 1,280 x 800 pixels（WXGA） | 1,280 x 800 pixels（WXGA） | 800 x 480 pixels（WVGA） |
| Auto Scaling | - | | | |
| Effective Display Area | W245.8 x H184.3 mm<br>(W9.68 x H7.26 in.) | W261.1 x H163.2 mm<br>(W10.28 x H6.43 in.) | W217.0 x H135.6 mm<br>(W8.54 x H5.34 in.) | W154.1 x H95.9 mm<br>(W6.06 x H3.78 in.) |
| Display Colors | 262,144 colors | | | |
| Backlight | White LED (Not user replaceable. When replacement is required, contact your local Pro-face distributor.) | | | |
| Backlight Service Life | 50,000 hours or more (continuous operation at 25 ℃ [77 ℉] before backlight brightness decreases to 50%) | | | |
| Brightness Control | 0...100 (Adjusted with touch panel or software) | | | |
| Brightness Sensor | - | | | |
| Front USB Interface | - | | | |
| Touch Panel Type | Resistive Film (analog) | | | |
| Touch Panel Resolution | 1,024 x 1,024 | | | |
| Touch Panel Service Life | 1 million times or more | | | |

## ■ Electrical Specifications

| | | Advanced Display | | | |
|---|---|---|---|---|---|
| | | SP-5600TA | SP-5600WA | SP-5500WA | SP-5400WA |
| Rated Input Voltage | | 12...24 Vdc | | | |
| Input Voltage Limits | | 10.8...28.8 Vdc | | | |
| Voltage Drop | | 12 Vdc: 1.25 ms or less    24 Vdc:  5 ms or less | | | |
| Power Consumption *1 | Max | 10.0 W | 11.5 W | 8.5 W | 6.5 W |
| | When power is not supplied to devices via front USB | - | | | |
| | When screen turns off the backlight (Standby Mode) | 2.5 W or less | | | 2 W or less |
| | When screen backlight 20% | 5.7 W or less | 6 W or less | 5 W or less | 4 W or less |
| In-Rush Current | | 30 A or less | | | |
| Noise Immunity | | Noise voltage: 1,000 Vp-p, pulse duration: 1 µs, rise time: 1 ns (via noise simulator) | | | |
| Voltage Endurance | | 1,000 Vac, 20 mA for 1 minute (between charging and FG terminals) | | | |
| Insulation Resistance | | 500 Vdc, 10 MΩ or more (between charging and FG terminals) | | | |

*1 Power Consumption for Display Module only.

# Display Module - Advanced Display

## ■ Environmental Specification

| | Advanced Display | | | |
|---|---|---|---|---|
| | SP-5600TA | SP-5600WA | SP-5500WA | SP-5400WA |
| Surrounding Air Temperature | 0...60 °C (32...140 °F) | | | |
| Storage Temperature | -20...60 °C (-4...140 °F) | | | |
| Surrounding Air and Storage Humidity | 10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less) | | | |
| Dust | 0.1 mg/m3 (10-7 oz/ft3) or less (non-conductive levels) | | | |
| Pollution Degree | For use in Pollution Degree 2 environment | | | |
| Corrosive Gases | Free of corrosive gases | | | |
| Atmospheric Pressure (Operating Altitude) | 800...1,114 hPa (2,000 m [6,561 ft] or lower) | | | |
| Vibration Resistance | IEC/EN 61131-2 compliant<br>5...9 Hz Single amplitude 3.5 mm (0.14 in.)<br>9...150 Hz Fixed acceleration: 9.8 m/s2<br>X, Y, Z directions for 10 cycles (approx. 100 min.) | | | |
| Shock Resistance | IEC/EN 61131-2 compliant<br>147 m/s2, X, Y, Z directions for 3 times | | | |
| Electrical fast transient/burst | IEC 61000-4-4<br>2 kV: Power port (display unit)<br>1 kV: Signal ports | | | |
| Electrostatic Discharge Immunity | Contact discharge method: 6 kV<br>Air discharge method: 8 kV<br>(IEC/EN 61000-4-2 Level 3) | | | |

## ■ Interface Specification

| | Advanced Display | | | |
|---|---|---|---|---|
| | SP-5600TA | SP-5600WA | SP-5500WA | SP-5400WA |
| Wireless LAN | - | | | |
| USB（Type A） | - | | | |
| USB （mini B） | - | | | |

## ■ Structural Specification

| | Advanced Display | | | |
|---|---|---|---|---|
| | SP-5600TA | SP-5600WA | SP-5500WA | SP-5400WA |
| Grounding | Functional grounding: Grounding resistance of 100 Ω, 2 mm2 (AWG 14) or thicker wire, or your country's applicable standard (same for FG and SG terminals). | | | |
| Cooling Method | Natural air circulation | | | |
| Structure *8 | IP66F, IP67F, TYPE 4X (Indoor Use Only)/13<br>* on the front panel when properly installed in an enclosure. | | | |
| External Dimensions | W315 x H241 x D67 mm (W12.4 x H9.49 x D2.64 in.) | W308.5 x H230.5 x D67 mm (W12.15 x H9.07 x D2.64 in.) | W268.5 x H198.5 x D67 mm (W10.57 x H7.81 x D2.64 in.) | W203.6 x H148.6 x D36 mm (W8.02 x H5.85 x D1.42 in.)*12 |
| Panel Cut Dimensions *9 | W301.5 x H227.5 mm (W11.87 x H8.96 in.) | W295 x H217 mm (W11.61 x H8.54 in.) | W255 x H185 mm (W10.04 x H7.28 in.) | W190 x H135 mm (W7.48 x H5.31 in.) |
| Weight *10 | 3.2 kg (7.1 lb)or less | 3 kg (6.6 lb) or less | 2.5 kg (5.5 lb) or less | 1.2 kg (2.6 lb) or less |

*8 The front face of this product, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification.
*9 For dimensional tolerance, everything +1/-0 mm (+0.04/-0 in.) and R in angle are below R3 (R0.12 in.)
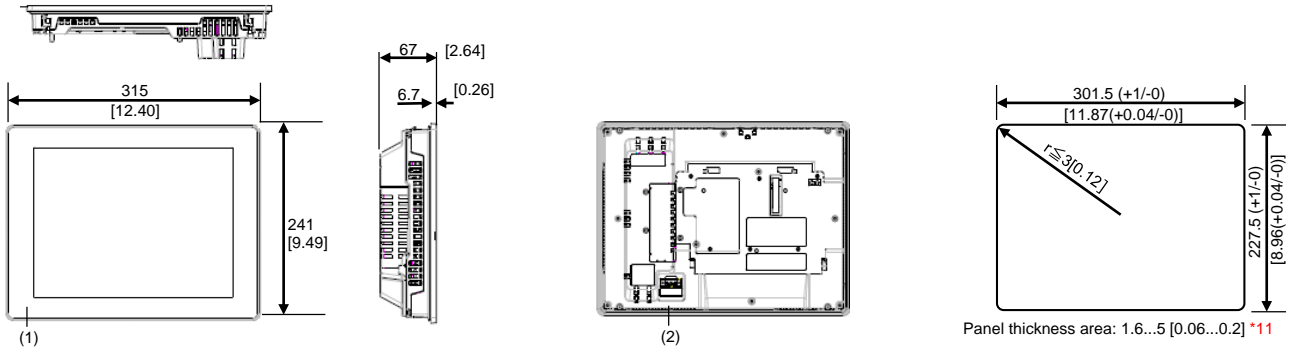*10 Weight for Display Module only
*12 When combined with Box Module, the depth is 67 mm (2.64 in.).
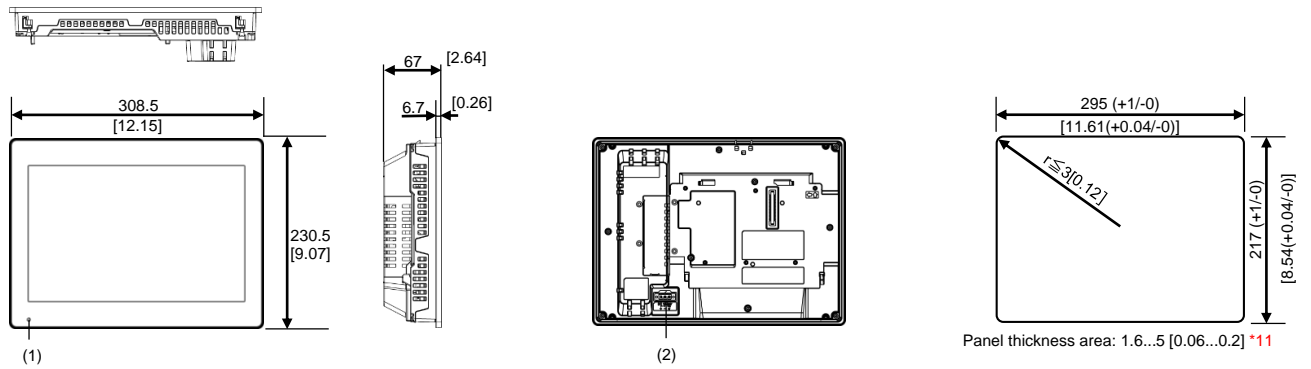
# Display Module - Advanced Display

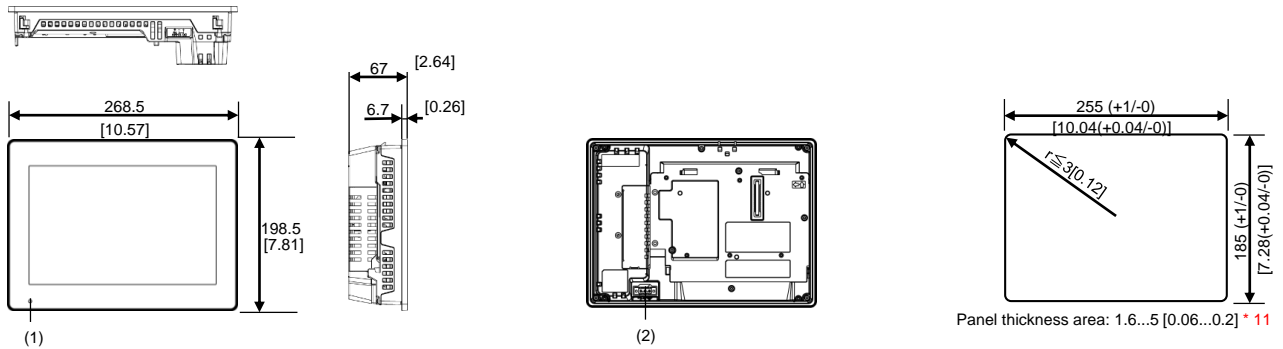## ■ External Dimensions / Parts Identification / Panel Cut Dimensions
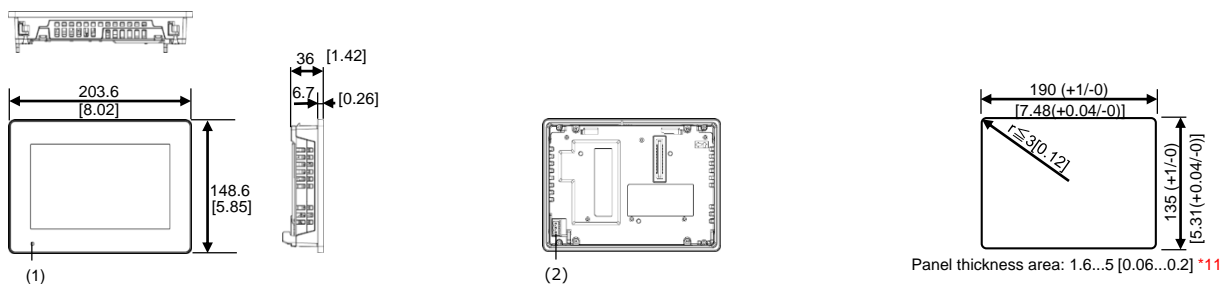
### SP-5600TA

mm [in.]

315 [12.40]
241 [9.49]
67 [2.64]
6.7 [0.26]
(1)
(2)

301.5 (+1/-0) [11.87(+0.04/-0)]
227.5 (+1/-0) [8.96(+0.04/-0)]
r ≦ 3[0.12]

Panel thickness area: 1.6...5 [0.06...0.2] *11

### SP-5600WA

308.5 [12.15]
230.5 [9.07]
67 [2.64]
6.7 [0.26]
(1)
(2)

295 (+1/-0) [11.61(+0.04/-0)]
217 (+1/-0) [8.54(+0.04/-0)]
r ≦ 3[0.12]

Panel thickness area: 1.6...5 [0.06...0.2] *11

### SP-5500WA

268.5 [10.57]
198.5 [7.81]
67 [2.64]
6.7 [0.26]
(1)
(2)

255 (+1/-0) [10.04(+0.04/-0)]
185 (+1/-0) [7.28(+0.04/-0)]
r ≦ 3[0.12]

Panel thickness area: 1.6...5 [0.06...0.2] * 11

### SP-5400WA

203.6 [8.02]
148.6 [5.85]
36 [1.42]
6.7 [0.26]
(1)
(2)

190 (+1/-0) [7.48(+0.04/-0)]
135 (+1/-0) [5.31(+0.04/-0)]
r ≦ 3[0.12]

Panel thickness area: 1.6...5 [0.06...0.2] *11

(1)Status LED   (2)Power Supply Connector

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