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**

<table>
<thead>
<tr>
<th>(1) Size</th>
<th>(2) Wireless LAN</th>
<th>(3) Resolution</th>
<th>(4) Touch Panel</th>
<th>(5) Power Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 10&quot;</td>
<td>60</td>
<td>Yes</td>
<td>T</td>
<td>TFT</td>
</tr>
<tr>
<td>7 10&quot;</td>
<td>00</td>
<td>–</td>
<td>W</td>
<td>Wide TFT</td>
</tr>
<tr>
<td>6 12&quot;</td>
<td>00</td>
<td>–</td>
<td>W</td>
<td>Wide TFT</td>
</tr>
</tbody>
</table>

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

#### Box Module

**PFXSP5**

<table>
<thead>
<tr>
<th>(6) Module Type</th>
<th>(7) Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Box</td>
</tr>
<tr>
<td>10</td>
<td>Power</td>
</tr>
<tr>
<td>00</td>
<td>Standard</td>
</tr>
</tbody>
</table>

*Coated models are also available as a customized product.*

### Electrical Specifications

<table>
<thead>
<tr>
<th></th>
<th>Open Box</th>
<th>Power Box</th>
<th>Standard Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Box</td>
<td>SP-5B41</td>
<td>SP-5B10</td>
<td>SP-5B00</td>
</tr>
<tr>
<td>Rated Input Voltage</td>
<td>12 Vdc (Supply from Display Module)</td>
<td>12 Vdc (Supply from Display Module)</td>
<td>12 Vdc (Supply from Display Module)</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Max 25 W</td>
<td>Max 25 W</td>
<td>Max 17.5 W</td>
</tr>
<tr>
<td>When power is not supplied to external devices</td>
<td>15 W or less</td>
<td>12.5 W or less</td>
<td>8.8 W or less</td>
</tr>
</tbody>
</table>

*13 Power consumption for Box Module only

### Environmental Specifications

<table>
<thead>
<tr>
<th></th>
<th>Open Box</th>
<th>Power Box</th>
<th>Standard Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Box</td>
<td>SP-5B41</td>
<td>SP-5B10</td>
<td>SP-5B00</td>
</tr>
<tr>
<td>Surrounding Air Temperature</td>
<td>0...60 °C (32...140 °F)</td>
<td>0...60 °C (32...140 °F)</td>
<td>0...60 °C (32...140 °F)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20...60 °C (-4...140 °F)</td>
<td>-20...60 °C (-4...140 °F)</td>
<td>-20...60 °C (-4...140 °F)</td>
</tr>
<tr>
<td>Surrounding Air and Storage Humidity</td>
<td>10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less)</td>
<td>10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less)</td>
<td>10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less)</td>
</tr>
<tr>
<td>Dust</td>
<td>0.1 mg/m3 (10.7 oz/ft³) or less (non-conductive levels)</td>
<td>0.1 mg/m3 (10.7 oz/ft³) or less (non-conductive levels)</td>
<td>0.1 mg/m3 (10.7 oz/ft³) or less (non-conductive levels)</td>
</tr>
<tr>
<td>Pollution Degree</td>
<td>For use in Pollution Degree 2 environment</td>
<td>For use in Pollution Degree 2 environment</td>
<td>For use in Pollution Degree 2 environment</td>
</tr>
<tr>
<td>Corrosive Gases</td>
<td>Free of corrosive gases</td>
<td>Free of corrosive gases</td>
<td>Free of corrosive gases</td>
</tr>
<tr>
<td>Atmospheric Pressure (Operating Altitude)</td>
<td>800...1,143 hPa (2,000 m [6,561 ft] or lower)</td>
<td>800...1,143 hPa (2,000 m [6,561 ft] or lower)</td>
<td>800...1,143 hPa (2,000 m [6,561 ft] or lower)</td>
</tr>
<tr>
<td>Vibration Resistance</td>
<td>IEC/EN 61131-2 compliant</td>
<td>IEC/EN 61131-2 compliant</td>
<td>IEC/EN 61131-2 compliant</td>
</tr>
<tr>
<td></td>
<td>5...9 Hz Single amplitude 3.5 mm (0.14 in.)</td>
<td>5...9 Hz Single amplitude 3.5 mm (0.14 in.)</td>
<td>5...9 Hz Single amplitude 3.5 mm (0.14 in.)</td>
</tr>
<tr>
<td></td>
<td>9...150 Hz Fixed acceleration: 9.8 m/s²</td>
<td>9...150 Hz Fixed acceleration: 9.8 m/s²</td>
<td>9...150 Hz Fixed acceleration: 9.8 m/s²</td>
</tr>
<tr>
<td></td>
<td>X, Y, Z directions for 10 cycles (approx. 100 min.)</td>
<td>X, Y, Z directions for 10 cycles (approx. 100 min.)</td>
<td>X, Y, Z directions for 10 cycles (approx. 100 min.)</td>
</tr>
<tr>
<td>Shock Resistance</td>
<td>IEC/EN 61131-2 compliant</td>
<td>IEC/EN 61131-2 compliant</td>
<td>IEC/EN 61131-2 compliant</td>
</tr>
<tr>
<td></td>
<td>147 m/s², X, Y, Z directions for 3 times</td>
<td>147 m/s², X, Y, Z directions for 3 times</td>
<td>147 m/s², X, Y, Z directions for 3 times</td>
</tr>
<tr>
<td>Electrical fast transient/burst</td>
<td>IEC 61000-4-4</td>
<td>IEC 61000-4-4</td>
<td>IEC 61000-4-4</td>
</tr>
<tr>
<td></td>
<td>2 kV: Power port (display unit)</td>
<td>2 kV: Power port (display unit)</td>
<td>2 kV: Power port (display unit)</td>
</tr>
<tr>
<td></td>
<td>1 kV: Signal ports</td>
<td>1 kV: Signal ports</td>
<td>1 kV: Signal ports</td>
</tr>
<tr>
<td>Electrostatic Discharge Immunity</td>
<td>Contact discharge method: 6 kV</td>
<td>Contact discharge method: 6 kV</td>
<td>Contact discharge method: 6 kV</td>
</tr>
<tr>
<td></td>
<td>Air discharge method: 8 kV (IEC/EN 61000-4-2 Level 3)</td>
<td>Air discharge method: 8 kV (IEC/EN 61000-4-2 Level 3)</td>
<td>Air discharge method: 8 kV (IEC/EN 61000-4-2 Level 3)</td>
</tr>
</tbody>
</table>
Box Module

**Memory**

<table>
<thead>
<tr>
<th>Open Box</th>
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<th>Standard Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP-SB41</td>
<td>SP-SB10</td>
<td>SP-SB00</td>
</tr>
</tbody>
</table>

- **Application Memory**
  - Editor: GP-Pro EX
  - Screen area: 64MB
  - CFast card
  - SD card
  - Flash EPROM

- **Backup Memory**
  - Screen area: NVRAM 320KB
  - CFast/SD card (storage): 5MB
  - NVRAM 64KB

- **Removable System**
  - No

- **Battery**
  - NVRAM: 320KB
  - SP: 64MB
  - Logic program area: 132KB
  - Free space: Approx. 17GB

- **Variable area**
  - NVRAM: 64KB

*14 Use the screen area when the user font area’s capacity is exceeded. For example, when an image font or a picture font is used. (Except PFXSP5B41)

*15 SP5000 series can retain NVRAM (backup memory) and RTC (clock data) without any batteries. But, when no power is supplied for 100 days or more, it’s necessary to additionally mount this option to retain RTC (clock data).

---

**Interface Specifications**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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<td>SP-SB10</td>
<td>SP-SB00</td>
</tr>
</tbody>
</table>

- **Serial Interface COM1**
  - RS-232C/422/485, Data Length: 7 or 8 bits, Stop Bit: 1 or 2 bits
  - Parity: None, odd, or even, Data Transmission Speed: 2,400 (1,200) to 115,200 bps
  - Connector: D-Sub 9 pin (plug)

- **Serial Interface COM2**
  - 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 (1,200) to 115,200 bps
  - Connector: D-Sub 9 pin (plug)

- **USB (Type A) Interface**
  - Connector: USB 2.0 (Type A) x 3
  - Power Supply Voltage: 5 Vdc ±5%
  - Maximum Current Supplied: 500 mA/port, 1 A total for 3 ports
  - Maximum Transmission Distance: 5 m

- **USB (mini-B) Interface**
  - Connector: USB 2.0 (mini-B) x 1, Maximum Transmission Distance: 5m (16.4 ft)

- **Ethernet Interface**
  - Standard: IEEE802.3i / IEEE802.3u / IEEE802.3ab, 10BASE-T/100BASE-TX/1000BASE-T
  - Connector: Modular jack (RJ-45) x 2

- **SD Card Interface**
  - SD Card Slot (Storage) x 1
  - SD Card Slot (System) x 1
  - SD Card Slot (Storage) x 1

- **CFast Card Interface**
  - CFast Card Slot (System) x 1
  - CFast Card Slot (Storage) x 1

- **Video Interface**
  - DVI / OUT
  - Connector: DVI-D 24 pin (socket) x 1

- **Sound Input Interface**
  - Sound Input: MIC or LINE input (software switch)
  - Connector: MINI-JACK 3.5 x 1

- **Sound Output Interface**
  - Speaker Output: 300 mW (Rated Load: 8 Q, Frequency: 16kHz)
  - LINE Output: Rated load: 10 kΩ or more
  - Connector: 2-piece terminal block (AUX) x 1

- **AUX Input Interface**
  - Alarm Output / Buzzer Output
  - Rated Voltage: 24 Vdc, Rated Current: 50 mA or less
  - Connector: 2-piece terminal block x 1

*16 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 barcode reader. If you connect multiple devices that are the same type, only the first device will work.

**Structural Specifications**

<table>
<thead>
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<td>SP-SB10</td>
<td>SP-SB00</td>
</tr>
</tbody>
</table>

- **Cooling Method**
  - Natural air circulation

- **External Dimensions**
  - SP5000 series: W188 x H131 x D25 mm (W7.4 x H5.16 x D1.77 in.)
  - W7.4 kg (16.4 lb) or less

*17 External Dimensions and Weight for Box Module only

---
External Dimensions / Parts Identifications

**SP-5B41**

- (1) Auxiliary Output/Speaker Output Interface (AUX)
- (2) DVI-D Output Interface
- (3) AUDIO Input Interface (LIN/MIC)
- (4) Status LED
- (5) Card Access LED
- (6) USB (Type A) Interface
- (7) USB (mini-B) Interface
- (8) Expansion Unit Interface Cover (EXT)
- (9) Storage Card Cover
- (10) System Card Cover
- (11) USB (Type A) Interface
- (12) Ethernet Interface (ETH1)
- (13) Ethernet Interface (ETH2)
- (14) Serial Interface (COM1)
- (15) Serial Interface (COM2)

**SP-5B10**

- (1) Auxiliary Output/Speaker Output Interface (AUX)
- (2) Status LED
- (3) Card Access LED
- (4) USB (mini-B) Interface
- (5) Expansion Unit Interface Cover (EXT)
- (6) Storage Card Cover
- (7) System Card Cover
- (8) USB (Type A) Interface
- (9) Ethernet Interface (ETH1)
- (10) Ethernet Interface (ETH2)
- (11) Serial Interface (COM1)
- (12) Serial Interface (COM2)

**SP-5B00**

- (1) Status LED
- (2) Card Access LED
- (3) USB (mini-B) Interface
- (4) Optional Battery
- (5) Storage Card Cover
- (6) USB (Type A) Interface
- (7) Ethernet Interface (ETH1)
- (8) Ethernet Interface (ETH2)
- (9) Serial Interface (COM1)
- (10) Serial Interface (COM2)