Operation and monitoring

SBC microbrowser devices form the core and main part of the HMI range. Windows-based systems and semi-graphic text panels with a classic keypad complete the range from top to bottom.

2.1 Overview of types, dimensions and resources

Device series from 5 to 12"es. SBC microbrowser and standard IT interfaces with onboard. Firmware and hardware "Made in Switzerland" – Saia Burgess Controls Murten.

2.2 Web Panel MB | Web technology

Trending, alarming and system images for the operator. Specific websites for maintenance and service. Local data storage in Excel-compatible CSV format with FTP access for monitoring and logging functions. Saia PCD® COSinus dedicated operating system for automation/MSR technology developed by Saia Burgess Controls.

2.3 Web Panel MB | Standard device

The operation of HMI applications is also possible from multiple connected Saia PCD® automation stations. The applications are created using the Saia PG5® Web Editor and made available in webserver of Saia PCD® automation devices for the web panel microbrowser (MB)

Device series accessories → Chapter 2.6 – Page 106

2.4 pWeb Panel MB

In addition to the functions of the standard MB panel, a fully programmable logic controller is integrated. It can be used to realize specific, complex operating and local data processing logic. It can be used as a management/control station for large and distributed systems.

Accessories for the device series → Chapter 2.6 – Page 106

2.5 Room Panels

Attractively designed and fully programmable, the panels will fit beautifully into any room. Autonomous room applications with the integrated logic controller enable users to control the room functions without a head-end station.

2.7 Web Panel with Windows®

Control panel for web visualisations with Windows®. Saia PCD® Web Panels are specially based on the requirements of web visualisations and are preconfigured with all the applications and software tools needed. No complicated installation and software updates. Saia PCD® Web Panels are ready to use.
## 2.1 Overview of types, sizes and resources

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Saia PCD® Web Panel MB</strong></td>
<td>Standard devices</td>
</tr>
<tr>
<td><strong>Saia PCD® pWeb Panel MB</strong></td>
<td>with programmable logic controller</td>
</tr>
<tr>
<td><strong>Saia PCD® Web Panel MB – room</strong></td>
<td>Fully programmable devices in a high-quality design for use in room applications. The visualisation can be custom-designed with the web editor.</td>
</tr>
<tr>
<td><strong>Saia PCD® Web Panel MB – Functional HMI</strong></td>
<td>Visualisation and operation with ready-to-use functions.</td>
</tr>
<tr>
<td><strong>Devices with Windows® operating system</strong></td>
<td>Industrial Web Panel with the Windows® operating system Functions can be expanded for complex visualisations using JAVA or .Net components. Access to standard websites</td>
</tr>
</tbody>
</table>

### Devices with Saia PCD® COSinus – control operating system

- Robust control panel for displaying web visualisations created with the Saia PG5® Web Editor.
- Ready to use with no software installation required.
- Display sizes 5.0” / 5.7” / 7.0” / 10.4” / 12.1”
  - Ethernet, USB and serial
  - FTP server
  - File system

### Saia PCD® pWeb Panel MB

- The programmable Web Panels combine an automation server for visualisation with control and management functions in a single device.
- Display sizes 5.7” / 10.4” / 12.1”
  - 2x Ethernet (switch), USB and RS-485
  - Integrated logic controller
  - Programmable with Saia PG5®
  - Automation server
  - 128 MB of flash memory

### Saia PCD® Web Panel MB – room

- Fully programmable devices in a high-quality design for use in room applications. The visualisation can be custom-designed with the web editor.
  - Display size 4.3”
  - 1 × Ethernet, 1 × RS-485, USB
  - PCAP touch technology
  - User file system 4…128 MB
  - Temperature and ambient sensors

### Saia PCD® Web Panel MB – Functional HMI

- Visualisation and operation with ready-to-use functions.
  - One step closer to the application
  - Functional HMI systems provide functions that support the user in the implementation of complex applications such as recording and visualising data records. The devices come with a preinstalled application. This application can be modified or expanded.
  - For more information, see Chapter 4

### Devices with Windows® operating system

- Industrial Web Panel with the Windows® operating system Functions can be expanded for complex visualisations using JAVA or .Net components. Access to standard websites
  - Display sizes 12” / 15” / 21”
  - Visualisation using microbrowser technology
  - 2x Ethernet, USB and serial
  - 500 MHz and 1.6 GHz CPU
  - Web, FTP and VNC server
  - Windows® CE 6.0 and Windows® 7
2.2 **Web Panel MB | Web technology**

**Combination of openness, international standards and universality**

A system for operation/monitoring with web technology consists of essentially just two functional elements: a web server and a browser. The protocol linking them is http. These two functional elements can be combined in the same automation device or located on opposite sides of the globe.

The operation/monitoring project is created once using the Saia PG5® Web Editor and saved to the associated Saia PCD® web server. Each browser can freely access any web server of the automation devices recognised in the network and run its web HMI application. A web server can handle multiple browsers simultaneously. Web HMI eliminates complex engineering, duplication of project expenses, software licensing problems and system breaks during operation/monitoring.

The web pages generated in Saia PG5® Web Editor are saved in a binary file format. This reduces communication costs to allow efficient visualisation even for lower power connections. Therefore, only the process points of the current view between the Web Panel and the automation server are cyclically exchanged via a CGI interface.

**Saia PCD® COSinus**

Systems are often expanded or equipped with new functions and must be maintained throughout their entire service life. The Saia PCD® COSinus operating system was specifically developed from scratch in-house for use in automation environments. It is therefore possible to ensure the industrial service life without being pressurised by large companies that influence the market. The top priority for Saia PCD® COSinus is a reliable and continuous operation.

The SBC microbrowser Panel series are essentially based on this reliable system which has been expanded with the microbrowser application. This allows the visualisation and operation of web projects which have been created with Saia PG5® Web Editor. Here, the visualisation project can be saved locally or on a remote server.
2.3 **Web Panel MB | Standard devices**

The microbrowser standard device series is the visualisation and control interface for automations with Saia PCD® controllers. The panels – finished to industrial quality – are available in various sizes to handle various requirements. The internal memory allows all devices to display data trending and alarm history so that dynamic visualisation can be implemented. An application saved in the controller can be displayed on the panel without any additional configuration tool.

**Main features**
- Large selection of display sizes, colour TFT display, in VGA or SVGA resolution
- Fast and easy commissioning without additional applications with an internal setup menu
- Connection to the web server via Ethernet

**Device design**

**Device installation**

**Main features**
- Large selection of display sizes, colour TFT display, in VGA or SVGA resolution
- Fast and easy commissioning without additional applications with an internal setup menu
- Connection to the web server via Ethernet

**Device installation**

**Main features**
- Large selection of display sizes, colour TFT display, in VGA or SVGA resolution
- Fast and easy commissioning without additional applications with an internal setup menu
- Connection to the web server via Ethernet

**Setup menu**

The panel is configured in two stages via the setup menu directly on the panel. No additional software or a connection to a laptop is required for commissioning.

**EPLAN macros**

EPLAN macros are available for project planning and engineering.

**EPLAN macros**

The eplan® electric P8 macros are available on the support page. The macros and article data are also provided on the eplan® data portal.

**SBC MB App**

Operation and monitoring on iPhone, iPad and Android

**Setup menu**

The panel is configured in two stages via the setup menu directly on the panel. No additional software or a connection to a laptop is required for commissioning.

**1st Stage: Network configuration**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable DHCP</td>
<td><img src="true" alt="on" /></td>
</tr>
<tr>
<td>TCP/IP Address</td>
<td>192.168.12.90</td>
</tr>
<tr>
<td>Subnet mask</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>Default gateway</td>
<td>0.0.0.0</td>
</tr>
<tr>
<td>DNS Enable</td>
<td><img src="true" alt="on" /></td>
</tr>
<tr>
<td>Primary DNS Server</td>
<td>0.0.0.0</td>
</tr>
</tbody>
</table>

**2nd Stage: Web server configuration**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection Name</td>
<td><img src="true" alt="link" /></td>
</tr>
<tr>
<td>Default Page</td>
<td><img src="true" alt="link" /></td>
</tr>
<tr>
<td>Remote host IP</td>
<td>127.0.0.1</td>
</tr>
<tr>
<td>Remote port</td>
<td>80</td>
</tr>
<tr>
<td>Remote password</td>
<td><img src="true" alt="mask" /></td>
</tr>
</tbody>
</table>
Operation and monitoring

Switch cabinet components

Consumer data acquisition

Dedicated room controllers

Technical Data

PCD7.D450WTPF
- Display size: 5.0” TFT
- Resolution (pixels): WVGA 800 × 480
- Touch screen: Resistive touch screen
- Background lighting: LED
- Colours: 65,536
- Onboard file system: 128 MB
- Processor: 240 MHz
- Interfaces: USB 1.1/2.0 Device Ethernet 10/100 M
- Current requirements: approx. 350 mA
- Real-time clock (RTC): Yes (Supercap)

PCD7.D457VTCF
- Display size: 5.7” TFT
- Resolution (pixels): WVGA 800 × 480
- Touch screen: Resistive touch screen
- Background lighting: LED
- Colours: 65,536
- Onboard file system: 6 MB
- Processor: 66 MHz
- Interfaces: RS-232, RS-485 USB 1.1 Device Ethernet 10/100 M
- Current requirements: approx. 500 mA
- Real-time clock (RTC): No

PCD7.D470WTPF
- Display size: 7.0” TFT
- Resolution (pixels): WVGA 800 × 480
- Touch screen: Resistive touch screen
- Background lighting: LED
- Colours: 65,536
- Onboard file system: 128 MB
- Processor: 66 MHz
- Interfaces: USB 1.1/2.0 Device Ethernet 10/100 M
- Current requirements: approx. 500 mA
- Real-time clock (RTC): Yes (Supercap)

General specifications

- Operating system: Saia PCD® COSinus with microbrowser expansion
- Protection type (front): IP 65
- Temperature range:
  - Operation: 0 … +50 °C
  - Storage: -25 … +70 °C
- Humidity:
  - Operation: 10 … 80%
  - Storage: 10 … 80% non-condensing
- Contrast adjustment: Yes
- FTP server: Yes
- Supply voltage: 24 VDC ±20 %

Dimensions (W × H × D) and cut-out (W × H) mm

PCD7.D450WTPF
- Front panel: W × H, 204 × 157
- Display: 5.0” W × H, 152 × 91.44
- Cut-out: W × H, 189 × 142

PCD7.D457VTCF
- Front panel: W × H, 202 × 156
- Display: 5.7” W × H, 117 × 88
- Cut-out: W × H, 189 × 142

PCD7.D470WTPF
- Front panel: W × H, 204 × 157
- Display: 7.0” W × H, 152 × 91.44
- Cut-out: W × H, 189 × 142

PCD7.D410VTCF
- Front panel: W × H, 281 × 221
- Display: 10.4” W × H, 211 × 150
- Cut-out: W × H, 262 × 202

PCD7.D412DTPF
- Front panel: W × H, 319 × 264
- Display: 12.1” W × H, 245 × 185
- Cut-out: W × H, 300 × 244
2.4 pWeb Panel MB

In addition to the functions of the standard MB panel, a programmable logic controller is integrated into the pWeb Panels. Based on the COSinus operating system of the Saia PCD®, specific, complex control logic and local data processing logic can be implemented in one device. The priority here are the operating and visualisation functions that enable small control systems to be implemented. The control functions have a lower priority.

**Main features**
- Ethernet interfaces (2 port switch)
- RS-485 interface
- 240 MHz processing power
- Expandable via PCD7.F1xxS modules
- Can be used as a RIO Master

**Device installation**

The high priority given to visualisation in the program workflow offers the best basis for displaying data from various devices. Simple control tasks can also be implemented directly in the panel. It is not advisable to use pWeb panels when constructing closed control loops or utilising HVAC and DDC Suite controllers. In these cases, a Saia PCD® controller is recommended.

**Application examples**

**Data concentrator**
The logic enables users to collect and link the data and status of multiple connected Saia PCD® controllers and to visualise the data at a higher level.

**Acquire and visualise data**
Values of any type can be counted and displayed by loading the S-monitoring application. Each system’s consumption is thereby made transparent. For more information, see chapter 4 "Acquisition of Consumption Data"
Dimensions (W × H × D) and cut-out (W × H) mm

PCD7.D457VT5F

Front panel W × H, 202 × 156
Display 5.7” W × H, 117 × 88
Cut-out W × H, 189 × 142

PCD7.D410VT5F

Front panel W × H, 281 × 221
Display 10.4” W × H, 211 × 150
Cut-out W × H, 262 × 202

PCD7.D412DT5F

Front panel W × H, 319 × 264
Display 12.1” W × H, 245 × 185
Cut-out W × H, 300 × 244

General specifications

<table>
<thead>
<tr>
<th>Operating system</th>
<th>Saia PCD® COSinus with microbrowser extensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection class</td>
<td>IP65</td>
</tr>
<tr>
<td>User program, ROM/DB/Text</td>
<td>1 MB</td>
</tr>
<tr>
<td>RAM/DB/Text</td>
<td>1 MB</td>
</tr>
<tr>
<td>Media</td>
<td>16,384 flags / 16,384 registers</td>
</tr>
<tr>
<td>Backup for users</td>
<td>The user program is saved on the integrated microSD card</td>
</tr>
<tr>
<td>File system for users</td>
<td>128 MB onboard</td>
</tr>
<tr>
<td>Program cycle time</td>
<td>10 cycles/ sec. maximum</td>
</tr>
<tr>
<td>Field level protocols</td>
<td>Serial S-Bus, Ether S-Bus, Ether S-I0, Modbus RTU or TCP</td>
</tr>
<tr>
<td>Internet services</td>
<td>SBC microbrowser, automation server</td>
</tr>
</tbody>
</table>

Interfaces

<table>
<thead>
<tr>
<th>Ethernet</th>
<th>2 × RJ45 (Switch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td>1 × (1.1 / 2.0)</td>
</tr>
<tr>
<td>Serial interfaces</td>
<td>RS-485</td>
</tr>
<tr>
<td></td>
<td>1 slot for PCD7.F1xxS</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Operation: 0 … 50°C typically</td>
</tr>
<tr>
<td></td>
<td>Storage: −25 … 70°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>Operation 10 … 80%</td>
</tr>
<tr>
<td></td>
<td>Storage 10 … 80% non-condensing</td>
</tr>
<tr>
<td>Processor</td>
<td>Coldfire CF5373L, 240 MHz</td>
</tr>
<tr>
<td>Battery</td>
<td>Lithium Renata CR 2032</td>
</tr>
<tr>
<td></td>
<td>(service life of 1…3 years)</td>
</tr>
<tr>
<td>Real-time clock (RTC)</td>
<td>with battery buffer</td>
</tr>
</tbody>
</table>

Technical Data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution / pixels</td>
<td>5.7” TFT</td>
<td>10.4” TFT</td>
<td>12.1” TFT</td>
</tr>
<tr>
<td>Touch screen</td>
<td>Resistive touch screen</td>
<td>Resistive touch screen</td>
<td>Resistive touch screen</td>
</tr>
<tr>
<td>Contrast adjustment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Background lighting</td>
<td>LED</td>
<td>LED</td>
<td>LED</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 VDC ±20%</td>
<td>24 VDC ±20%</td>
<td>24 VDC ±20%</td>
</tr>
<tr>
<td>Current draw</td>
<td>approx. 500 mA</td>
<td>approx. 500 mA</td>
<td>approx. 600 mA</td>
</tr>
<tr>
<td>Status front LED</td>
<td>---</td>
<td>---</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Communication

The Saia PCD® pWeb Panel MB units can be expanded with one slot for PCD7.Fxxx modules or PCD7.Rxxx modules with various communication and memory modules. The modules are described in the section Saia PCD1.
2.5 **Room Panels**

Attractively designed and fully programmable, the panels will fit beautifully into any room. Autonomous room applications with the integrated logic controller enable users to control the room functions without a head-end station and therefore the associated delays through long communication channels.

### Main features

- Fully programmable visualisation with the Web Editor 8
- Fully programmable logic controller for autonomous room applications
- Mounting in standard wall boxes
- Onboard temperature and ambient sensors
- Fast Coldfire CPU with 240 MHz
- TFT colours with a colour depth of 65,000
- Capacitive touch screen technology for a very sensitive response

### Mounting

The installation of the panels is carried out using an adapter included in the package on standardised, double wall boxes.

E.g. electrical material Art. No. L 8102
HSB Weibel AG 372 104 026
HSB Weibel AG 372 502 509
HSB Weibel AG 372 104 747

The panel is anchored in the adapter, and can only be removed with the use of tools.

### Application examples

Operation and regulation of autonomous room applications. Implementation using the programmable microbrowser room panel and the fully programmable E-Line modules. Connection based on the RS-485 interface to the E-line modules in the room, and Ethernet connection to the floor controller.

You will find more examples in Chapter B4 "Room Automation"
The panel can also be mounted transversely. Ensure that the ventilation slots are not closed for the internal sensor. A location in the room with an airflow and with no direct light will produce a better result in the sensor measurements.

**Technical Data**

<table>
<thead>
<tr>
<th>Display size (inch)</th>
<th>PCD7.D443WTNR</th>
<th>PCD7.D443WTPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>24 VDC ±20%</td>
<td>128 MB</td>
</tr>
<tr>
<td>Current draw</td>
<td>approx. 4 Watt / 160 mA</td>
<td>128 KB</td>
</tr>
<tr>
<td>File system</td>
<td>4 MB</td>
<td>128 MB</td>
</tr>
<tr>
<td>Logic controller (no remanence)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>User program, ROM/DB/Text</td>
<td>No</td>
<td>128 KB</td>
</tr>
<tr>
<td>RAM/DB/Text</td>
<td>No</td>
<td>128 KB</td>
</tr>
<tr>
<td>Media</td>
<td>No</td>
<td>16,384 flags / 16,384 registers *</td>
</tr>
<tr>
<td>Memory for parameter (media) backup</td>
<td>No</td>
<td>1000 non-volatile Registers</td>
</tr>
<tr>
<td>Real-time clock</td>
<td>Yes (Supercap)</td>
<td></td>
</tr>
<tr>
<td>Operating temperature / operating humidity</td>
<td>0…50 °C / 95% non-condensing</td>
<td></td>
</tr>
<tr>
<td>Dimensions / Cut-out</td>
<td>90 × 150 mm / 60 × 120 mm</td>
<td></td>
</tr>
<tr>
<td>Housing colour</td>
<td>RAL7035 (light grey) / Front black glossy</td>
<td></td>
</tr>
</tbody>
</table>

*To restrict the maintenance there is no internal battery on the devices and therefore the Media are non-retentive. However, the "EL Backup Restore Media" FBox from the E-Suite Library allows to easily backup in the non-volatile registers the values which has to be stored, like the adjust parameters.
2.6 **Accessories for microbrowser panels**

2.6.1 **Installation systems for the microbrowser family**

The correct mounting kit for all Web HMI devices

The microbrowser panel series not only fits in a switch cabinet, but also enables this modern technology to be easily and correctly integrated into the area in close proximity to the user using industrial in-wall and off-wall mounting kits. The mounting kits therefore enable simple wall mounting, which is consistently available for all panels. These kits minimise logistics and mounting costs.

### 5.7” / 7”

**In-wall**
- PCD7.D457 IWS2

**On-wall**
- PCD7.D457 OWS2

- **Cut-out** $W \times H$, 270 $\times$ 211
- **Minimum depth**
  - For solid walls: 75 mm
  - For cavity walls: 65 mm

### 10.4”

**In-wall**
- PCD7.D410-IWS

**On-wall**
- PCD7.D410-OWS

- **Cut-out** $W \times H$, 270 $\times$ 211
- **Minimum depth**
  - For solid walls: 75 mm
  - For cavity walls: 65 mm

### 12.1”

**In-wall**
- PCD7.D412-IWS

**On-wall**
- PCD7.D412-OWS

- **Cut-out** $W \times H$, 309 $\times$ 245
- **Minimum depth**
  - For solid walls: 75 mm
  - For cavity walls: 65 mm
On-wall mounting kit 5.7” / 7”
on-wall PCD7.D457 OWS

Wall mounting kit 5.7” / 7”
PCD7.D457-OWS1

OEM or proprietary design

The standard 5.7” microbrowser panel without a front panel offers the potential for individual creativity. Whether it’s for modern rooms or rustic spaces with customer-specific fronts in aluminium, black or wood, this modern technology can be easily and seamlessly integrated in accordance with the room requirements.

Panel with aluminium front PCD7.D457VTCZ33
Panel with black front PCD7.D457VTCZ35
Panel with mirror-effect front PCD7.D457VTCZ36
Panel with neutral front PCD7.D457VTCZ11

2.6.2 Fixation sets for Web Panel MB

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 230 9178-001</td>
<td>Fixation set (4 pieces)</td>
</tr>
<tr>
<td>3 230 9178-002</td>
<td>Fixation set (6 pieces)</td>
</tr>
</tbody>
</table>
2.6.2 **SBC Micro-Browser App**

The SBC Micro Browser App is a small browser application that allows to display and operate web based applications created with the Saia PG5® Web Editor5/Web Editor8 and stored on a Saia PCD® Device. The Micro Browser App behaves like a browser using Java (IMaster.jar). The "look and feel" of the visualisation is similar to Micro-Browser panels PCD7.D4xx. Of course, web based Alarming and Trending functionality’s are included. The integrated station list makes it easy to navigate fast between different web servers, or allows to create user specific access on one overview page to different parts in an application, system or device.

### 2.6.2.1 **SBC Micro-Browser App for Apple and Android**

The SBC microbrowser apps overcome the limitations of the industrial world. Most tablets or smartphones are optimised for a long mobile runtime with high performance. The microbrowser app is therefore the ideal way to plug the gap between stationary and mobile areas of use. This provides the foundation for 24-hour monitoring and direct intervention in system operation.

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>SBC MB LITE</th>
<th>SBC MB</th>
<th>SBC MB LITE</th>
<th>SBC MB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system version</td>
<td>iOS Version 3.2</td>
<td>Android V.2.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution / pixels</td>
<td>Depending on the devices used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Update management</td>
<td>AppStore</td>
<td>Google Play</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restrictions</td>
<td>No station list</td>
<td>No limitations</td>
<td>No station list</td>
<td>No limitations</td>
</tr>
</tbody>
</table>

**2.6.2.2 **SBC Micro-Browser App for Windows**

The SBC Micro Browser App for Windows runs on Windows based operating systems (W7, W8, W10, …). The Micro Browser App for Windows includes following specific additional features:

- Print of the current visible window content
- Screen Capture of the current visible window content
- Different scaling modes “Auto resize”, “Best fit” and “Fixed size”
2.6.3 Ways of using the Web Panels with S-Web technology

Using S-Web technology combined with the microbrowser panel systems, operation can be transparent and clear for all users. Each individual operating side has a fully flexible design and can be created using the standard objects or existing function templates.

Using S-Web technology combined with the microbrowser panel systems, operation can be transparent and clear for all users. Each individual operating side has a fully flexible design and can be created using the standard objects or existing function templates.

2.6.4 Extensive visualisation options with Windows-based devices

The Windows operating system allows users to confront the constant challenges of the world of automation. This is made possible by the vast application landscape (apps) which provides quick solutions for any application. Should you find no application on the market for your purposes, you can create a high-level language quickly and effectively based on .Net.

However, please exercise caution when using Windows-based systems. Development of the Windows operating systems is constantly progressing to meet the variety of different requirements. As a result, applications may have to be constantly adjusted for changes in the system. The maintenance requirements of Windows-based systems are greater compared to microbrowser devices, but provide increased functionality.
2.7 Web Panel with Windows® operating system

Control panel for web visualisations with Windows®:
Saia PCD® Web Panels are specifically based on the requirements of web visualisations and preconfigured with all the relevant applications and software tools. No complicated installation and software updates. Saia PCD® Web Panels are ready to use immediately.

Main features
- Preconfigured and ready to use for web visualisations, optimised for Saia PCD® controllers
- 12”/15”/21” Colour TFT display and touch operation
- 2× Ethernet

Device installation

Technical Data

<table>
<thead>
<tr>
<th></th>
<th>PCD7.D5120WTA010</th>
<th>PCD7.D5150WTA010</th>
<th>PCD7.D6120WTA010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display size (inch)</td>
<td>12”/16:10</td>
<td>15”/16:10</td>
<td>12”/16:10</td>
</tr>
<tr>
<td>Operating system</td>
<td>Windows® CE 6.0 R3</td>
<td>Windows® CE 6.0 R3</td>
<td>Windows® Embedded Standard 7</td>
</tr>
<tr>
<td>Resolution (pixels)</td>
<td>1280 × 800</td>
<td>1280 × 800</td>
<td>1280 × 800</td>
</tr>
<tr>
<td>Brightness</td>
<td>400 cd/m²</td>
<td>450 cd/m²</td>
<td>400 cd/m²</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel® Atom 1.6 GHz</td>
<td>Intel® Atom 1.6 GHz</td>
<td>Intel® Atom 1.6 GHz</td>
</tr>
<tr>
<td>Main memory</td>
<td>1 GB</td>
<td>1 GB</td>
<td>2 GB</td>
</tr>
<tr>
<td>Internal ROM</td>
<td>4 GB MLC</td>
<td>4 GB MLC</td>
<td>16 GB CFast</td>
</tr>
<tr>
<td>Expandable ROM</td>
<td>2 GB SD (OS)</td>
<td>2 GB SD (OS)</td>
<td>SD (optional)</td>
</tr>
<tr>
<td>Power consumption</td>
<td>22 W</td>
<td>24 W</td>
<td>22 W</td>
</tr>
<tr>
<td>USB</td>
<td>3 × USB 2.0</td>
<td>3 × USB 2.0</td>
<td>3 × USB 2.0</td>
</tr>
<tr>
<td>External monitor</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>.Net</td>
<td>Compact Framework</td>
<td>Compact Framework</td>
<td>Framework 4.0</td>
</tr>
</tbody>
</table>
Saia PCD® Web Panels for web visualisations

12" Web Panel | PCD7.D5120WTA010  
| PCD7.D6120WTA010

15" Web Panel | PCD7.D5150WTA010  
| PCD7.D6150WTA010

21" Panel PC | PCD7.D6210WTI010

General specifications

| Protection type (front) | IP 65 |
| Web/FPT/VNC/File Server | Yes |
| Supply voltage | 24 VDC ±20% |
| Ethernet | 2x Ethernet Ports RJ45 |
| Serial | RS-232 D-Sub 9-pin |
| Applications | JAVA Runtime, microbrowser |
| Temperature range | Operation: 0…50 °C, storage: –20…70 °C |
| Humidity | Operation: 10…75%, storage: 10…95% non-condensing |
| Touch screen | Resistive touch screen |

| Dimensions (W × H × D) and cut-out (W × H) mm |
| 12" Web Panel | PCD7.D5120WTA010  
| PCD7.D6120WTA010

15" Web Panel | PCD7.D5150WTA010  
| PCD7.D6150WTA010

21" Panel PC | PCD7.D6210WTI010

| Windows® Embedded Standard 7  
| Windows® Embedded Standard 7  
| Windows® Embedded Standard 7 |
| 1280 × 800  
| 1280 × 800  
| 1920 × 1080 |
| 450 cd/m²  
| 450 cd/m²  
| 250 cd/m² |
| Intel® Atom 1.6 GHz  
| Intel® Celeron® 8810E 2 × 1.6 GHz  
| 2.1 GHz Intel® I7-2715QE |
| 2 GB  
| 2 GB  
| 4 GB |
| 16 GB CFast  
| 100 GB HDD  
| 100 GB HDD |
| SD (optional) | via USB | via USB |
| 24 W | 114 W | 125 W |
| 3 × USB 2.0 | 4 × USB 2.0 | 4 × USB 2.0 |

| Framework 4.0 |
| Framework 4.0 |

Operation and monitoring | saia-pcd.com | SBC