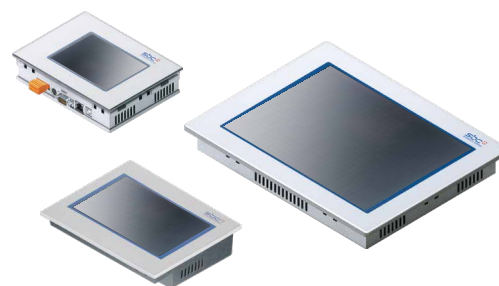


# A2 Operation and monitoring

SBC microbrowser devices form the core and main part of the HMI range. Windows-based systems complete the range.



## 2.1 Overview of types, dimensions and resource

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.



Page 86

## 2.2 Web Panels 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.



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## 2.3 Web Panels 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).



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Device series accessories: Chapter 2.6 – Page 94

## 2.4 pWeb Panels 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.



90

Accessories for the device series: Chapter 2.6 – Page 94

## 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.



92

## 2.7 Cyber secure HTML5 touch Web panels

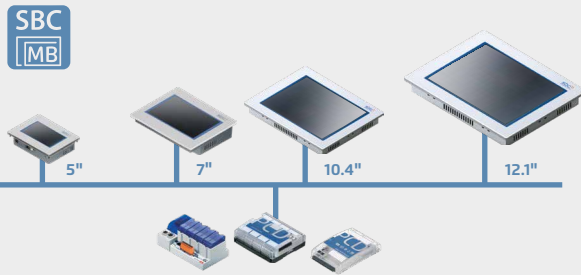
Latest HMI generation of Saia PCD with elegant and robust design for control cabinet installations. Modern HTML5 browser based on Linux. HTML5 touch panel provides high cyber security level to prevent from unauthorized access. Controllers, HMI and tools are harmonized while the compatibility with HTML5 Web-Editor is ensured. Saia PCD web Panels are ready to use.



98

## 2.1 Overview of types, sizes and resources

### Saia PCD® Web Panels MB|Standard devices



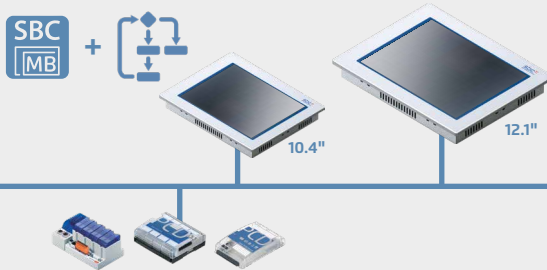
#### Saia PCD® Web Panels MB|Standard devices

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" / 7.0" / 10.4" / 12.1"

- ▶ Ethernet, USB and serial
- ▶ FTP server
- ▶ File system

### Saia PCD® pWeb Panels MB | with programmable logic controller



#### Saia PCD® pWeb Panels MB|with programmable logic controller

The programmable Web Panels combine an automation server for visualisation with control and management functions in a single device.

#### Display sizes 10.4" / 12.1"

- ▶ 2× Ethernet (switch), USB and RS-485
- ▶ Integrated logic controller
- ▶ Programmable with Saia PG5®
- ▶ Automation server
- ▶ 128 MB of flash memory

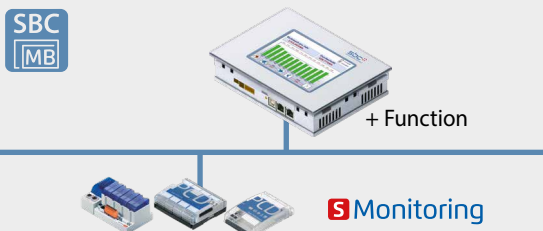
### Saia PCD® Web Panels MB – room



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 Panels MB – Functional HMI|Visualisation and operation with ready-to-use functions

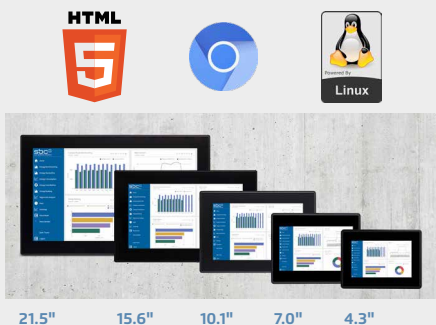


#### One step closer to the application

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

### Cyber secure HTML5 touch Web panels



Modern HTML5 browser based on Linux. Chromium Browser to access PCD Web-Server or Saia PCD Supervisor. High cyber security level with protection from unauthorized accesses

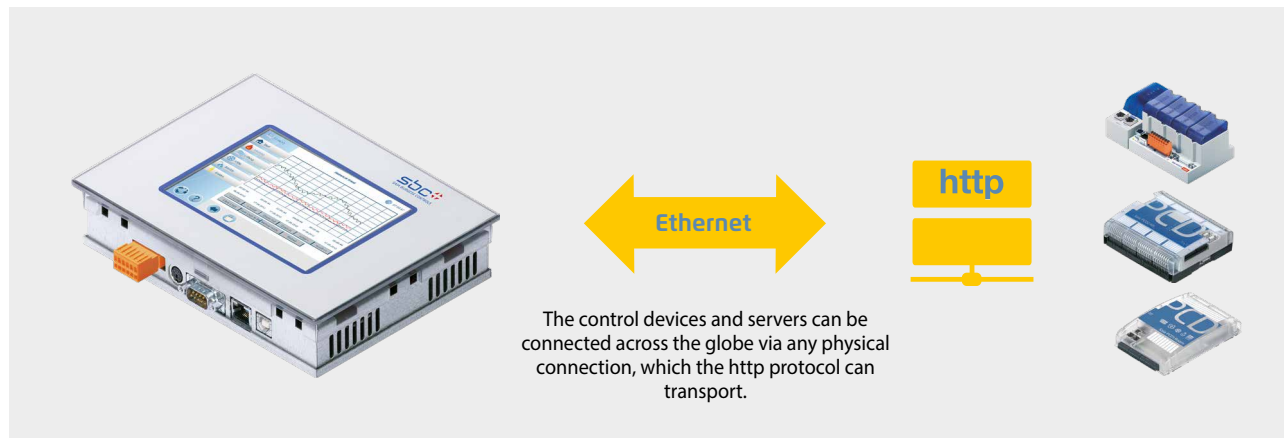
#### Display sizes 4.3" / 7.0" / 10.1" / 15.6" / 21.5"

- ▶ Up to 3× Ethernet & USB
- ▶ 800 MHz and 1 GHz CPU
- ▶ 4 GB flash memory
- ▶ Resistive & True Glass Projected Capacitive Multitouch Screens
- ▶ Brilliant up to 2,100,000 pixels display
- ▶ Compatible with HTML5 Web-Editors projects.

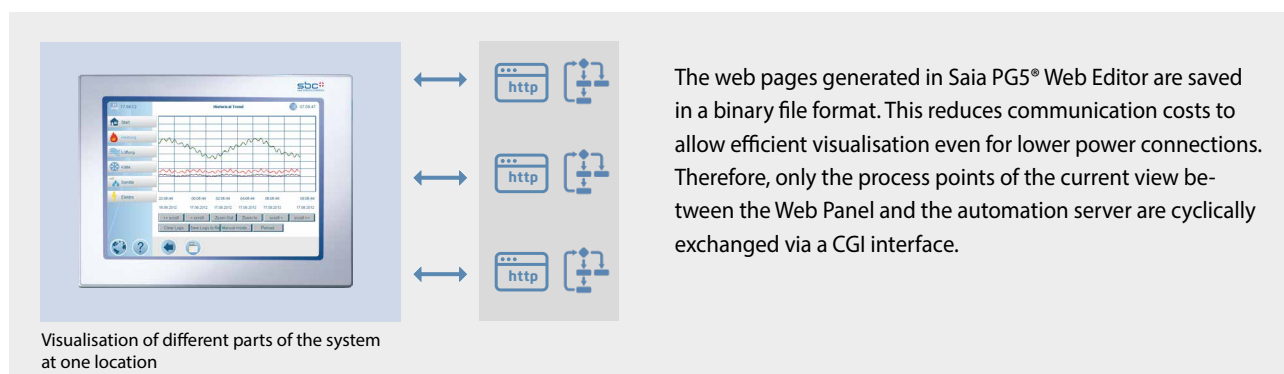
## 2.2 Web Panels MB | Web technology

### 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.

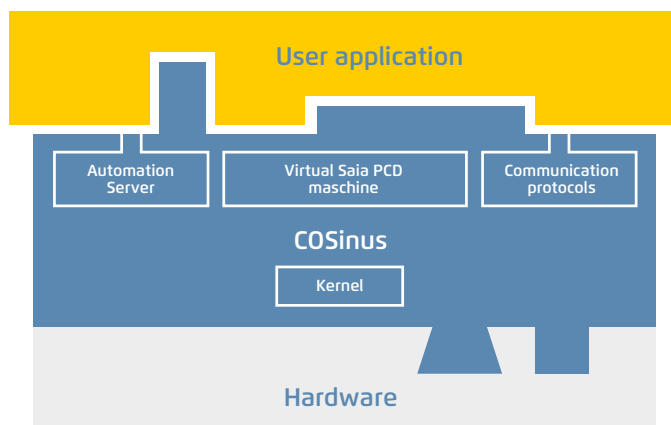


### Saia PCD® COSinus



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.



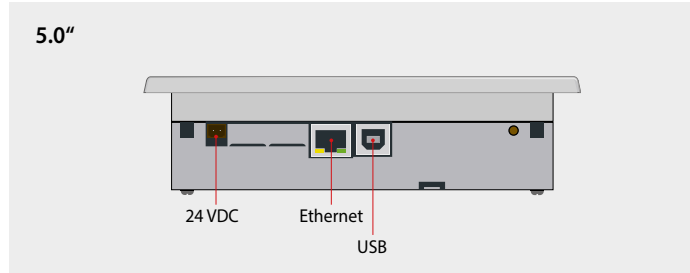
## 2.3 Web Panels MB | Standard devices

The microbrowser standard device series is the visualisation and control interface for automations with Saia PC D 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.

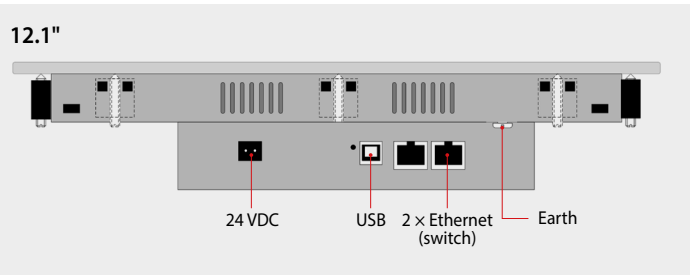
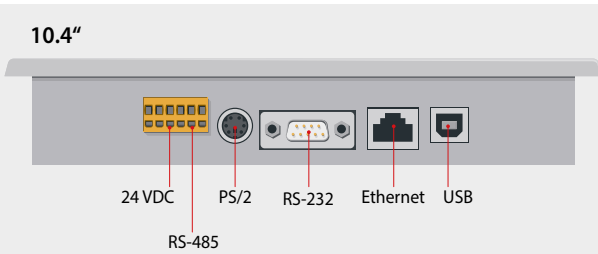
### Main features

- ▶ 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



### EPLAN macros

EPLAN macros are available for project planning and engineering



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

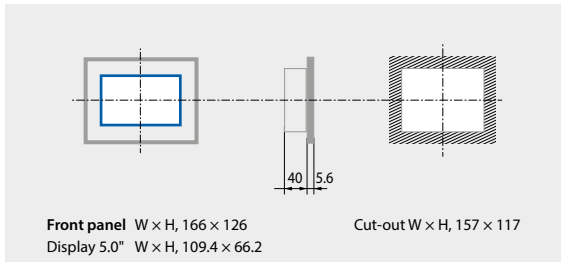
Setup	Network	Help
Enable DHCP	<input type="checkbox"/>	
TCP/IP Address	192.168.12.90	▶
Subnet mask	255.255.255.0	▶
Default gateway	0.0.0.0	▶
DNS Enable	<input type="checkbox"/>	
Primary DNS Server	0.0.0.0	▶

#### 2nd Stage: Web server configuration

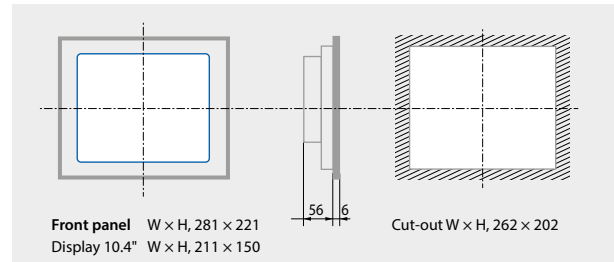
Startup Connection	Edit Connection
Connection Name	▶
Start Page	Start.html ▶
Remote host IP	127.0.0.1 ▶
Remote port	80 ▶
Remote password	▶

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

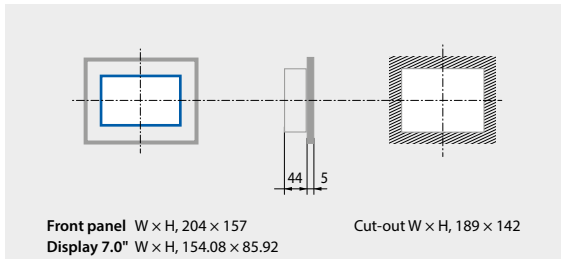
### PCD7.D450WTPF



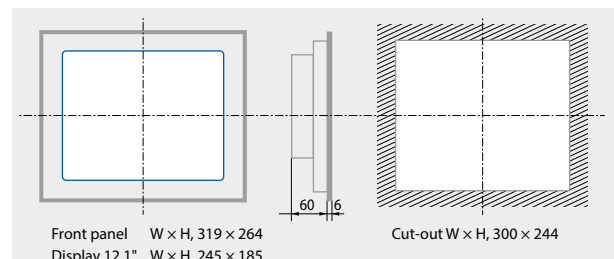
### PCD7.D410VTCF



### PCD7.D470WTPF



### PCD7.D412DTPF



## General specifications

Operating system	Saia PCD COSinus with microbrowser expansion
Protection type (front)	IP 65
Temperature range	Operation 0 ... +50 °C (7.0": -20...70 °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 %



### Technical Data

	PCD7.D450WTPF	PCD7.D470WTPF	PCD7.D410VTCF	PCD7.D412DTPF
Display size	5.0" TFT	7.0" TFT	10.4" TFT	12.1" TFT
Resolution (pixels)	WVGA 800 × 480	WVGA 800 × 480	VGA 640 × 480	SVGA 800 × 600
Touch screen	Resistive touch screen	Resistive touch screen	Resistive touch screen	Resistive touch screen
Background lighting	LED	LED	LED	LED
Colours:	65,536	65,536	65,536	65,536
Onboard file system	128 MB	128 MB	4 MB	128 MB
Processor	240 MHz	240 MHz	66 MHz	240 MHz
Interfaces	USB 1.1/2.0 Device Ethernet 10/100 M	USB 1.1/2.0 Device Ethernet 10/100 M	RS-232, RS-485 USB 1.1 Device Ethernet 10/100 M	USB 1.1/2.0 Device Ethernet 10/100 M
Current requirements	approx. 350 mA	approx. 400 mA	approx. 500 mA	approx. 600 mA
Real-time clock (RTC)	Yes (Supercap)	Yes (Supercap)	No	Yes (Supercap)

## 2.4 pWeb Panels MB

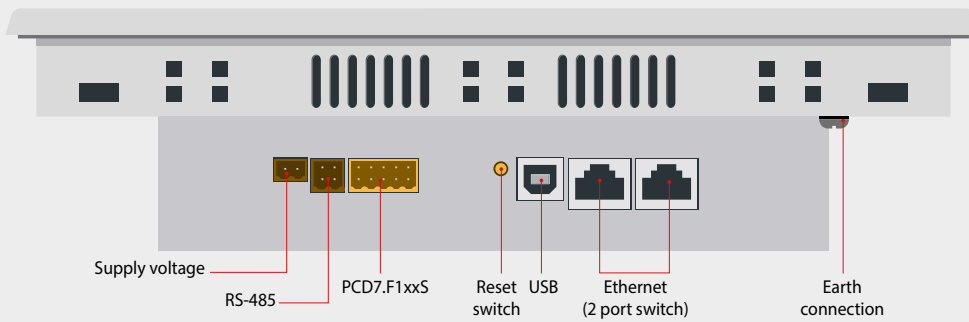
In addition to the functions of the standard MB panel, a programmable logic controller is integrated into the pWeb Panels. Based on the COSinus operating system of the Saia PCD, specific, complex control logic and local data processing logic can be implemented in one device. The priority here are the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

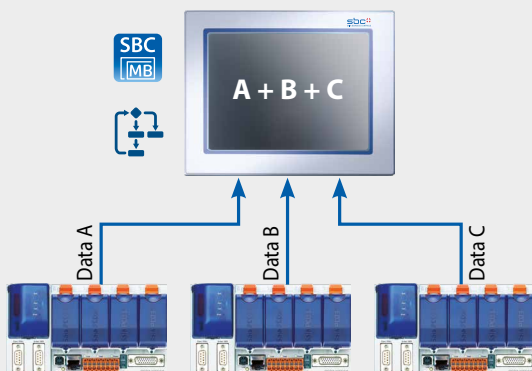


The high priority given to visualisation in the program workflow offers the best basis for displaying data from various devices. Simple control tasks can also be implemented directly in the panel. It is not advisable to use pWeb panels when constructing closed control loops or utilising HVAC and DDC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

### Application examples

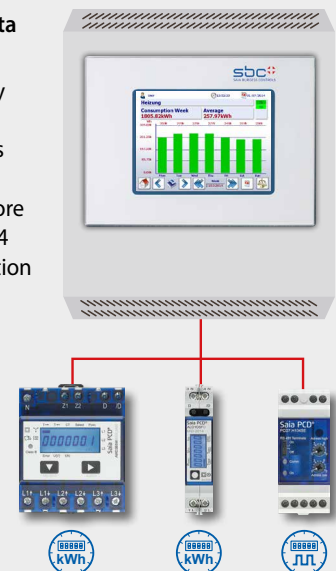
#### Data concentrator

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

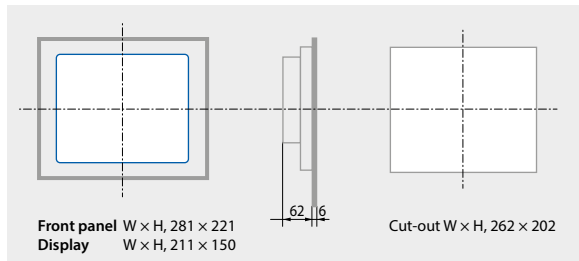
Values of any type can be counted and displayed by loading the S-monitoring application. Each system's consumption is thereby made transparent. For more information, see chapter 4 "Acquisition of Consumption Data"



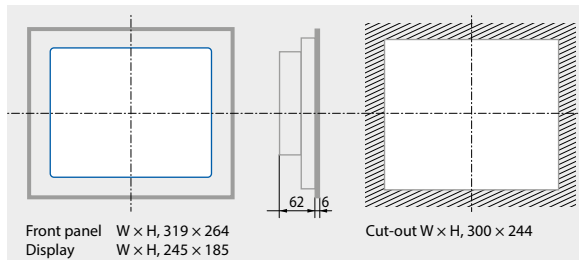
## Dimensions (W × H × D) and cut-out (W × H) mm



### PCD7.D410VT5F



### PCD7.D412DT5F



## General specifications

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

## Interfaces

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

## Technical Data

	PCD7.D410VT5F	PCD7.D412DT5F
Display size	10.4" TFT	12.1" TFT
Resolution/pixels	VGA 640 × 480	SVGA 800 × 600
Touch screen	Resistive touch screen	Resistive touch screen
Contrast adjustment	Yes	Yes
Background lighting	LED	LED
Power supply	24 VDC ±20%	24 VDC ±20%
Current draw	approx. 500 mA	approx. 600 mA
Status front LED	---	Yes

## Communication

The Saia PCD pWeb Panel MB units can be expanded with one slot for various communication modules PCD7.F1xxS and memory modules PCD7.Rxxx. The modules are described in the section Saia PCD1.

## 2.5 Room Panels

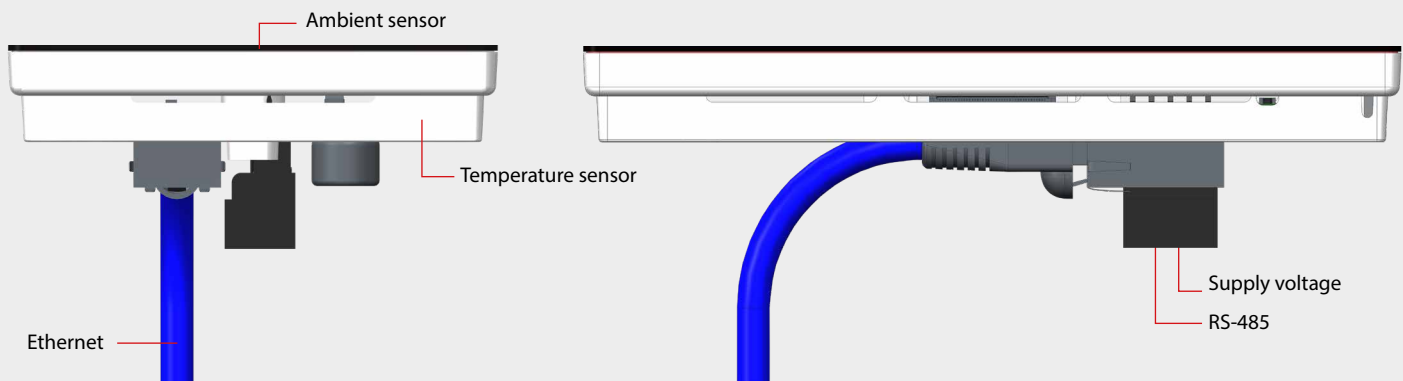
Attractively designed, in the housing colour white or black, the panels will fit beautifully into any room.

Autonomous room applications with the integrated logic controller (fully programmable) 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 sensor
- ▶ 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.

Such as electrical material Type No. L 8102

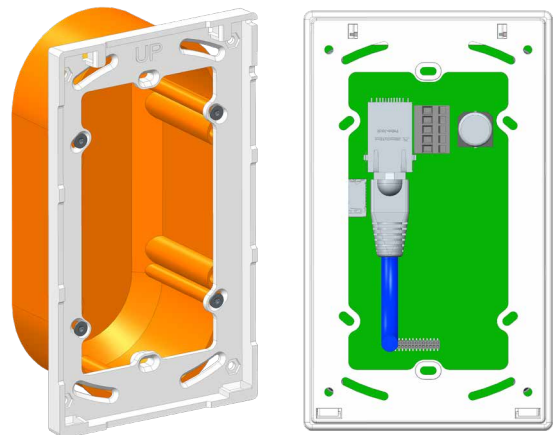
HSB-Weibel AG No. 372 104 747

Agro No. 9922

Blass-Elektro No. 22031

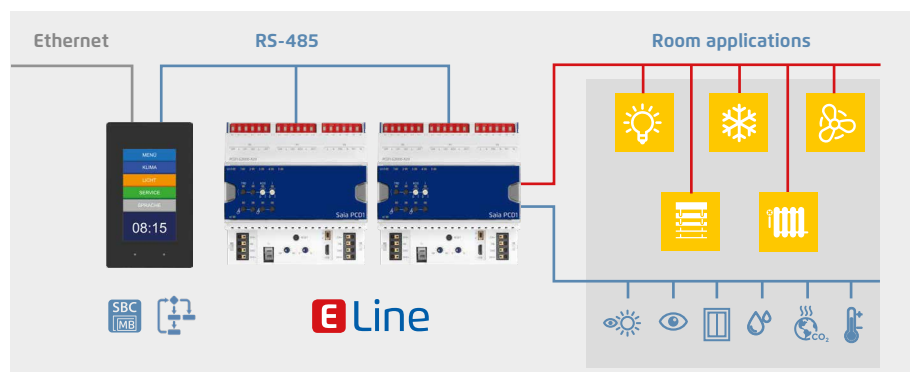
Bticino No. 504E

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 E-Line RIO modules. Connection based on the RS-485 interface to the E-line modules in the room, and Ethernet connection to the floor controller.

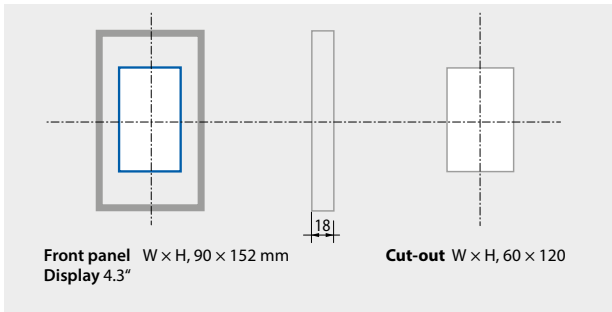


You will find more examples in Chapter B4 "Room Automation"

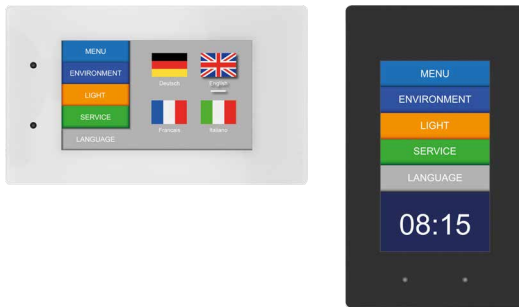


## Dimensions

### PCD7.D443WTxRx



### The panel can also be mounted transversely



The location of the panel can slightly influence the temperature measurement, an easy calibration allows to remedies this and so increases the accuracy.

In any case ensure that the ventilation slots are not obstructed (LED on the left side!).

## General technical data

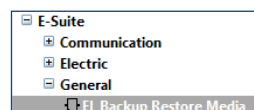
### PCD7.D443WTxR PCD7.D443WTxRW

Operating system	Saia PCD COSinus with micro browser expansion
<b>Display</b>	
Display size [inch]	4,3"
Resolution [pixels]	WQVGA / 480 x 272 pixels
Contrast adjustment	Yes
Background lighting	LED (dimming in 20 steps)
Touchscreen	PCAP technology
<b>Interfaces</b>	
USB	1 x (1.1 / 2.0)
Ethernet	Ethernet 10/100 full-duplex, auto-sensing/auto-crossing
Real-time clock	Yes (SuperCap)
<b>Sensors</b>	
Temperature	Accuracy: ±1°C easy calibration
<b>Power supply</b>	
Supply voltage	24 VDC ±20%
Current draw	Approx. 4 watts / 160 mA
<b>Environment</b>	
Temperature range	Operation: 0...50°C typically Storage: -25...+70°C
Humidity	Operation: 10...80%, storage: 10...80%, non-condensing
Protection class	IP20
<b>Mechanic</b>	
Weight	approx. 200 g

## Technical Data

	White case	PCD7.D443WT5RW
	Black case	PCD7.D443WT5R
File system		4 MB
Logic controller (no remanence)		No
User program, ROM/DB/Text		Yes
RAM/DB/Text		No
Media		No
Memory for parameter (media) backup		No
Serial interfaces		No

**!** 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.

#### 7"

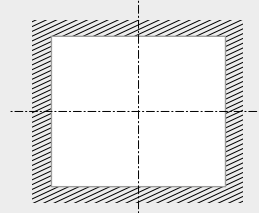
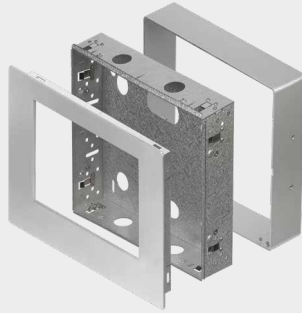
##### In-wall

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"

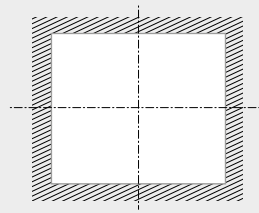
##### In-wall

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"

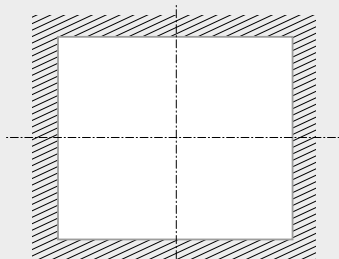
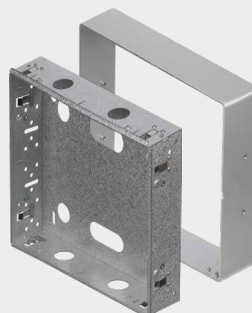
##### In-wall

PCD7.D412-IWS



##### On-wall

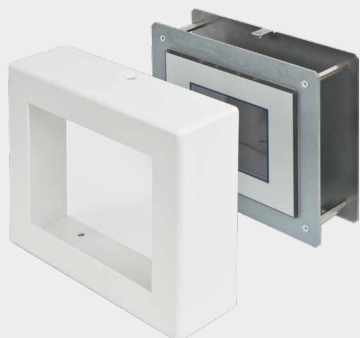
PCD7.D412-OWS



Cut-out  $W \times H, 309 \times 245$   
 Minimum depth  
 For solid walls 75 mm  
 For cavity walls 65 mm

## On-wall mounting kit 7"

on-wall PCD7.D457-OWS



73,5 mm

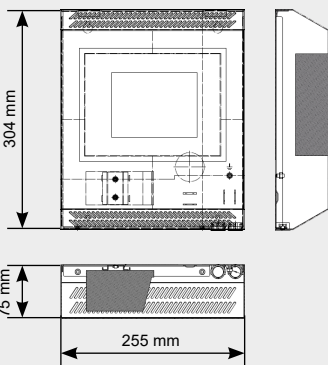
266 mm

219 mm

Width 266 mm  
Height 219 mm  
Depth 73.5 mm

## Wall mounting kit 7"

PCD7.D457-OWS1



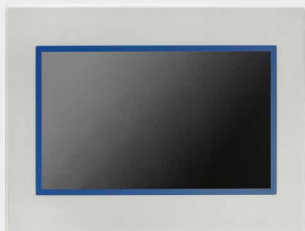
## OEM or proprietary design

Panels with a neutral front can also be delivered in small quantities.

The standard Micro Browser Panel provide space for your own creativity. In large quantities, the panels can be visually adapted to individual room needs, with customized front foils.

### Panels with neutral front

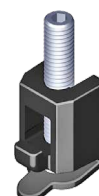
PCD7.D450WTPZ11  
PCD7.D470WTPZ11  
PCD7.D410VTCZ11  
PCD7.D412DTPZ11  
PCD7.D410VT5Z11  
PCD7.D412DT5Z11



## 2.6.2 Fixation sets for Web Panels MB

### Order details

Type	Description
3230 9178-001	Fixation set (4 pieces) for the models PCD7.D450, 2 sets necessary for the model PCD7.D412
3230 9178-002	Fixation set (6 pieces) for the models PCD7.D470, PCD7.D410













## 2.6.3 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.

### 2.6.3.1 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.

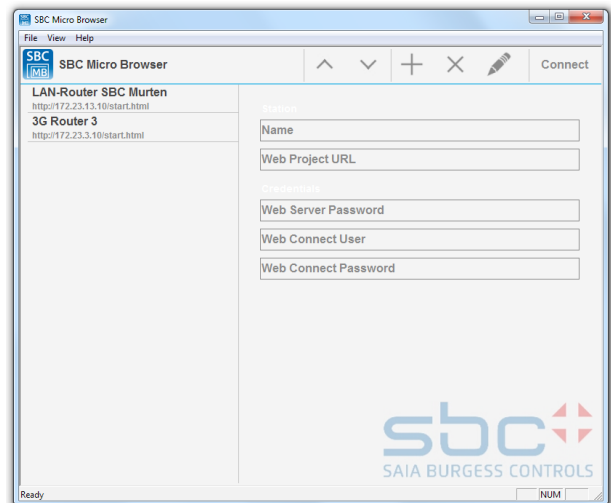
				
<b>Technical Data</b>	SBC MB LITE	SBC MB	SBC MB LITE	SBC MB
<b>Operating system version</b>	 > iOS Version 3.2		 > Android V.2.2	
<b>Resolution / pixels</b>	Depending on the devices used			
<b>Update management</b>	AppStore		Google Play	
<b>Restrictions</b>	No station list No URL skipping 	No limitations 	No station list No URL skipping 	No limitations 

### 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”



## 2.6.4 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.



DDC Suite / HVAC templates created with Saia PG5® Web Editor 8



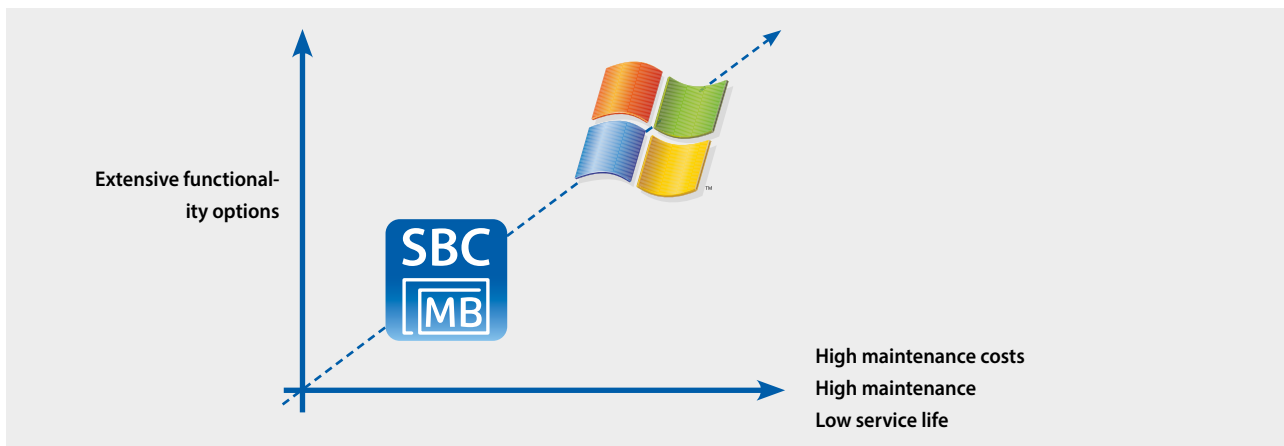
My HMI: Web pages created with Saia PG5® Web Editor 8



For further information, see the chapter "S-Web technology"

## 2.6.5 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 New Cyber secure HTML5 touch Web Panels | PCD7.D5

### High cyber security and HTML5 Web-Editor projects:

The new HMI generation of Saia PCD offers an elegant and robust design for control cabinet installations. With its modern HTML5 browser based on Linux, the touch panel provides high cyber security level to prevent from unauthorized access.

High quality, industrial grade and long life cycles (>10 years) are at the core of the panels.

Controllers, HMI and tools are harmonized while the compatibility with HTML5 Web-Editor is ensured.



### Main features

- ▶ Powerful and fast ARM Cortex-A9 Processor
- ▶ Interfaces: Ethernet, USB
- ▶ Power supply: 24 VDC
- ▶ HTML5 Chromium Browser to access PCD Webserver or any other webserver
- ▶ Compatible with HTML5 Web-Editor projects
- ▶ Brilliant up to 2,100,000 pixels display
- ▶ Wide angle visibility
- ▶ Capacitive touch versions in total glass design. Resistant to scratches, UV and chemicals
- ▶ IP66 protection from the front
- ▶ Operating temperature  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- ▶ Real Time Clock, RTC Back-up, Buzzer
- ▶ Certifications: IECEx, ATEX, DNV-GL, Lloyd's Register, UL



21.5"

15.6"

10.1"

7.0"

4.3"

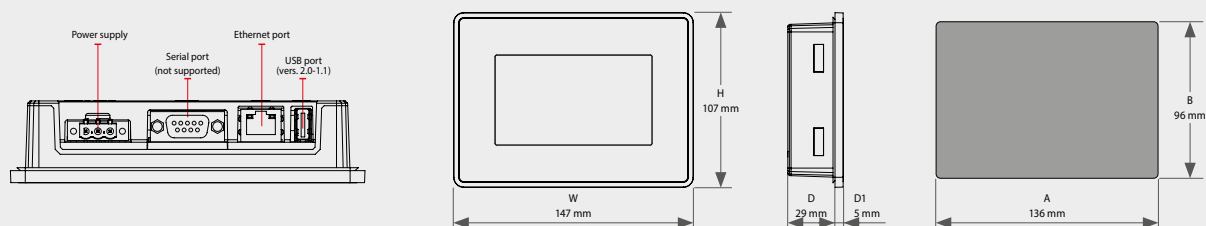


## Technical Data

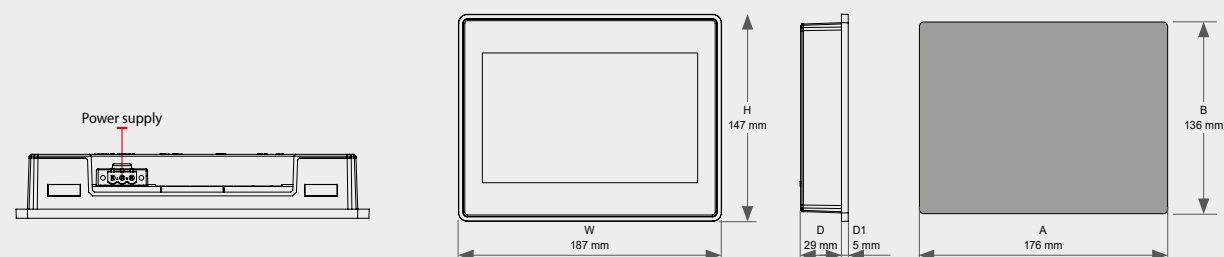
Technical Data	PCD7.D543RF	PCD7.D570RF	PCD7.D570CF1
	Resistive touch		Capacitive (multi touch)
Display size (inch)	4.3" TFT, 16:9, LED, 64 K	7" TFT, 15:9, LED, 64 K	7" TFT, 15:9, LED, 16 M
Operating system	Linux	Linux	Linux
Resolution (pixels)	480 × 272	800 × 480, WVGA	800 × 480, WVGA
Brightness	200 cd/m <sup>2</sup>	200 cd/m <sup>2</sup>	500 cd/m <sup>2</sup>
Touchscreen	Resistive	Resistive	True Glass projected Capacitive, Multi touch
USB Port	1× (Host v. 2.0, max. 500 mA)	1× (Host v. 2.0, max. 100 mA)	2× (Host v. 2.0, max. 500 mA)
CPU	ARM Cortex-A8, 1 GHz	ARM Cortex-A9, dual core, 800 MHz	i.MX8M Mini Quad ARM Cortex-A53
RAM	512 MB	1 GB	2 GB
Flash	4 GB	4 GB	4 GB
Power Supply	24 Vdc (10... 32 Vdc)	24 Vdc (10... 32 Vdc)	24 Vdc (10... 32 Vdc)
Current consumption	0.25 A max. at 24 Vdc	0.3 A max. at 24 Vdc	0.7 A max. at 24 Vdc
Operating temp.	0...+50°C	0...+50°C	-20...+60°C

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

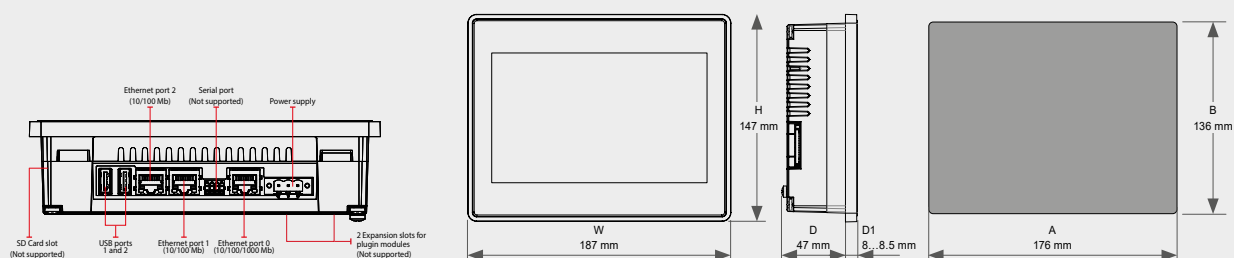
### PCD7.D543RF | 4,3" HTML5 Web Panel, resistive touch

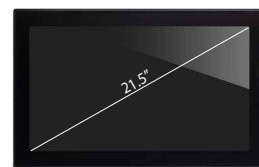


### PCD7.D570RF | 7" HTML5 Web Panel, resistive touch



### PCD7.D570CF1 | 7" HTML5 Web Panel, capacitive touch

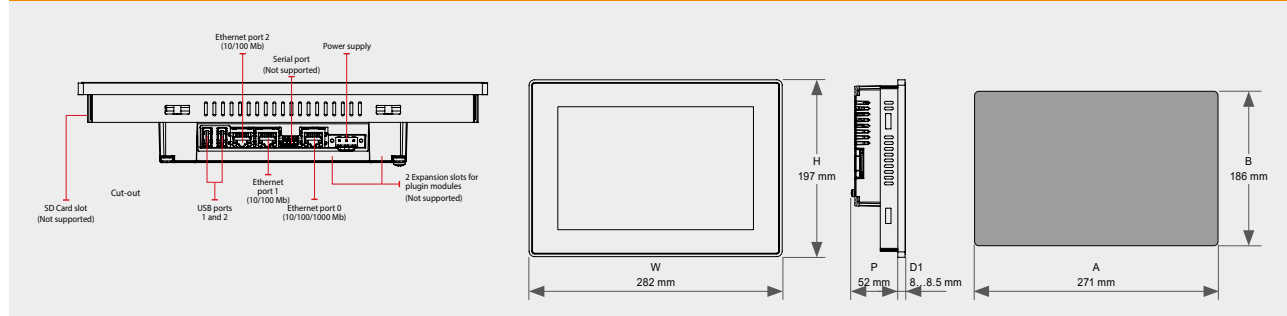




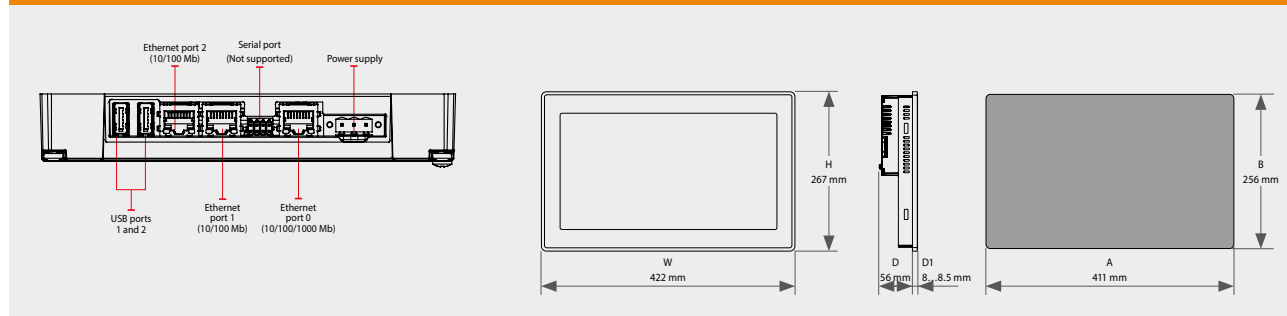
Technical Data	PCD7.D510CF1	PCD7.D515CF1	PCD7.D521CF1
	Capacitive (multi touch)		
Display size (inch)	10.1" TFT, 16:9, LED, 16 M	15,6" TFT, LED, 16 M	21,5" TFT, LED, 16 M
Operating system	Linux	Linux	Linux
Resolution (pixels)	1280 x 800, WXGA	1366 x 768, HD	1920 x 1080, Full HD
Brightness	500 cd/m <sup>2</sup>	400 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>
Touchscreen	True Glass projected Capacitive, Multi touch	True Glass projected Capacitive, Multi touch	True Glass projected Capacitive, Multi touch
USB Port	2x (Host v. 2.0, max. 500 mA)	2x (Host v. 2.0, max. 500 mA)	2x (Host v. 2.0, max. 500 mA)
CPU	i.MX8M Mini Quad ARM Cortex-A53	i.MX8M Mini Quad ARM Cortex-A53	i.MX8M Mini Quad ARM Cortex-A53
RAM	2 GB	2 GB	2 GB
Flash	4 GB	4 GB	4 GB
Power Supply	24 Vdc (10... 32 Vdc)	24 Vdc (10... 32 Vdc)	24 Vdc (10... 32 Vdc)
Current consumption	1.0 A max. at 24 Vdc	1.2 A max. at 24 Vdc	1.7 A max. at 24 Vdc
Operating temp.	-20...+60°C	-20...+60°C	-20...+60°C

Dimensions (W x H x D) and cut-out (A x B) mm

PCD7.D510CF1 | 10,1" HTML5 Web Panel, capacitive touch



PCD7.D515CF1 | 15,6" HTML5 Web Panel, capacitive touch



PCD7.D521CF1 | 21,5" HTML5 Web Panel, capacitive touch

