

Hardware Manual

PCD7.D6120TV010



PCD7.D6150TV010



saia-burgess
Smart solutions for comfort and safety

The PCD7.D61xx series

Controls Division

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0.1 Document history

Document-no.	Version	Change	Publication	Remarks
026/844	E1		30.04.2006	Initial version

0.2 Trademarks

Saia® is a registered trademark of Saia-Burgess Electronics AG.

Microsoft, Windows 2000, Windows XP, Windows CE and the Windows logo are either registered trademarks or trademarks of Microsoft Corporation in the USA and/or other countries.

Technical changes are subject to the state of technology.

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1 Introduction

Please read the manual before you use the controls for the first time, and keep it in a safe place for later use.

1

Target group

This manual is written for users with prior knowledge of PC and automation technology.

Conventions used

[KEY] Keystrokes entered by the user are shown in square brackets, e.g. [CTRL] or [DEL]

Courier Screen output is shown in Courier font, e.g. C:\>

Courier Bold Keyboard input by the user is shown in Courier Bold font, e.g. C:\>DIR

Italics Names of buttons, menus or other screen elements to be selected, and product names, are given in *italics*.

Safety instructions

Wherever hazardous faults could occur in the automation system, i.e. a fault could cause major damage to materials or people, additional external precautions must be taken or devices installed (e.g. independent limit switches, mechanical locks etc.), to assure/force a safe operating state in the event of a fault.

The user is responsible for checking suitability for the intended purpose, or for use under the specified conditions. Saia-Burgess Controls AG offers no guarantee in this area.

Qualified staff

The unit described here may only be set up and operated in conjunction with this document. A device may only be commissioned and operated by qualified staff. Qualified staff in the meaning of the safety instructions in this documentation are people authorised to commission, ground and label devices, systems and electric circuits according to the standards of the security policy.

Proper use

The device may only be used for the scenarios specified in the catalogue and the technical description, and only in conjunction with third-party devices recommended or approved by Saia-Burgess Controls AG. Trouble-free and safe operation of the device depends on appropriate transport, storage, setup and assembly, as well as careful operation and maintenance.

1

1.1 Certificates and Directives

The following apply to the product described in this documentation:

EMC Directive

DC power supply

Devices with DC power supply meet the requirements of EC Directive 89/336/EEC on electromagnetic compatibility and are suitable for use in the following area in accordance with their CE marking:

Area of use Requirement for

	Noise emission	Resistance to interference
Industry	EN 61000-6-4: 2001	EN 61000-6-2: 2001

Declaration of Conformity

The EC Declarations of Conformity and associated documentation can be provided to the competent authorities in accordance with the above EC Directive. Your sales representative can supply copies on request.

Assembly guidelines

Observe the assembly guidelines and safety instructions given in this documentation when commissioning and operating the devices.

2 Product description

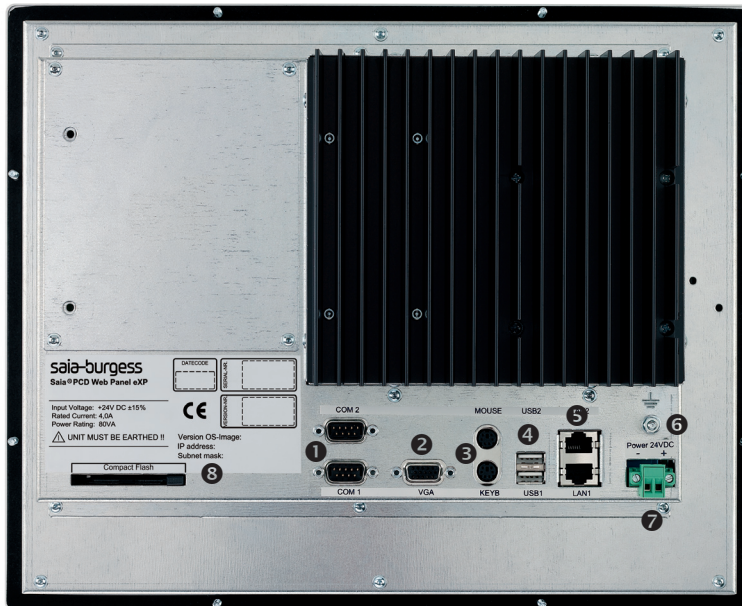
The series comprises the PCD7.D6120TV010 and PCD7.D6150TV010 models.



2

User side

Colour TFT display with resistive touch
(PCD7.D6120TV010 and PCD7.D6150TV010)



Slot side

- | | | | |
|---|--------------------|---|--------------------------|
| ❶ | COM1/COM2 | ❺ | LAN1/LAN2 |
| ❷ | VGA | ❻ | Earth screw |
| ❸ | PS2 mouse/keyboard | ❼ | Power supply |
| ❹ | USB1/USB2 | ❽ | Compact flash (external) |

3 Commissioning

3.1 Power supply



The PCD7.D61xx devices must only be run on functional extra-low voltage with secure insulation in accordance with EN60950. The control transformer must comply with EN60742.

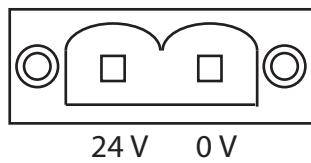
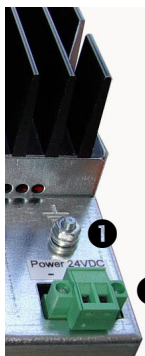
3

The supply voltage must be checked against the type plate.

When wiring the power supply and the connector, the details on the type plate must be observed.

Before commissioning the system, all cable connections should be checked.

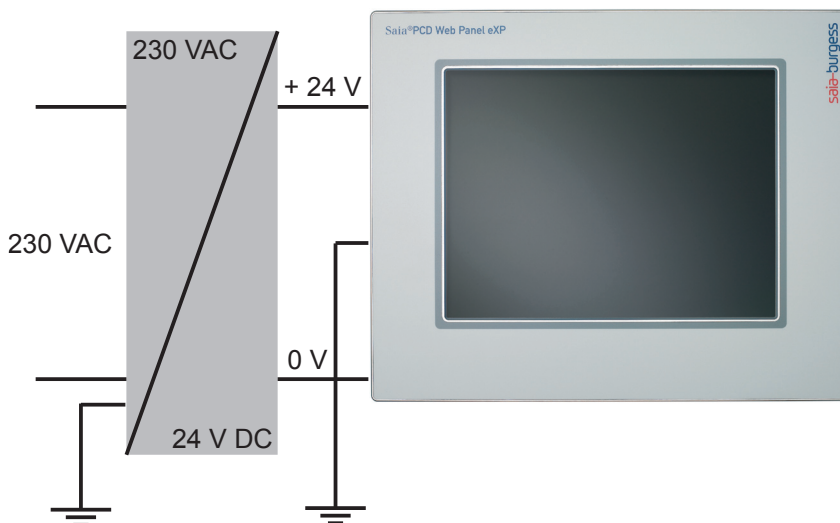
The 0V power supply has a low-resistance connection to the casing (earth).



- ❶ Earth screw
- ❷ 24V power supply

The power supply is connected via a two-pole plug connector (Phoenix MST BT 2.5/2).

Supply layout



3.2 Earthing concept

To ensure that electrical faults are dealt with safely, the following points should be observed:

- Connect device and switching cabinet by the shortest route to a central earthing point.
- Ensure lowest impedance possible in connection between device and switching cabinet.
- All data cables connected to the device should use shielded lines.
- The shields should be earthed at both ends. There must be a low-resistance connection between the linked systems. High equalising currents across the shield resulting from potential differences must be avoided.
- Earth connection to use green/yellow cable with min. 4 mm² cross-section.

3

3.3 Installation

The device should be installed in an RF shielded housing or a metal switching cabinet.

Adequate ventilation must be provided. To ensure that the heat generated in the device can be dissipated, a 100 mm space must be kept clear around the unit.



The unit must be disconnected from the power supply for installation and de-installation.

Only the assembly components supplied should be used to mount the unit in the housing. The type and number of assembly components is dependent on the device (see Technical Details).

The dimensions specified for the holes in the front plate must be adhered to, to maintain IP 65 (front) protection (see Technical Data).

Failure to observe the above instructions could cause damage to the device.

3.4 Switch-on

Start-up: The PCD7.D61xx units boot up and load the operating system independently.

4 Technical data

4.1 Physical dimensions

PCD7.D6120TV010 exterior/flush mounting dimensions

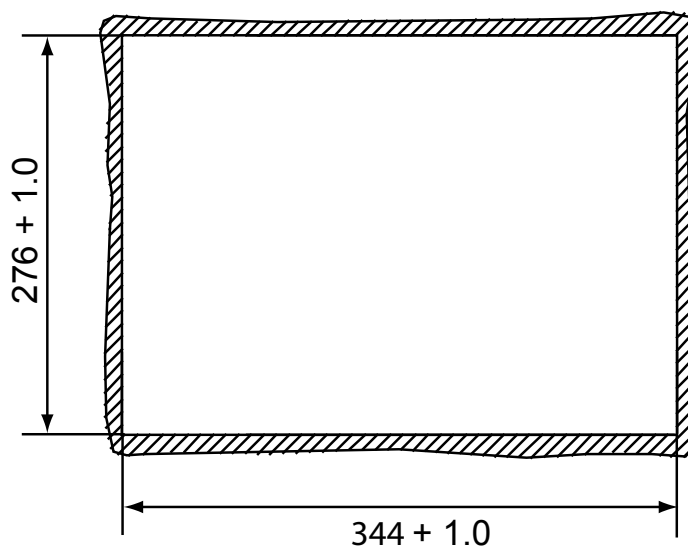
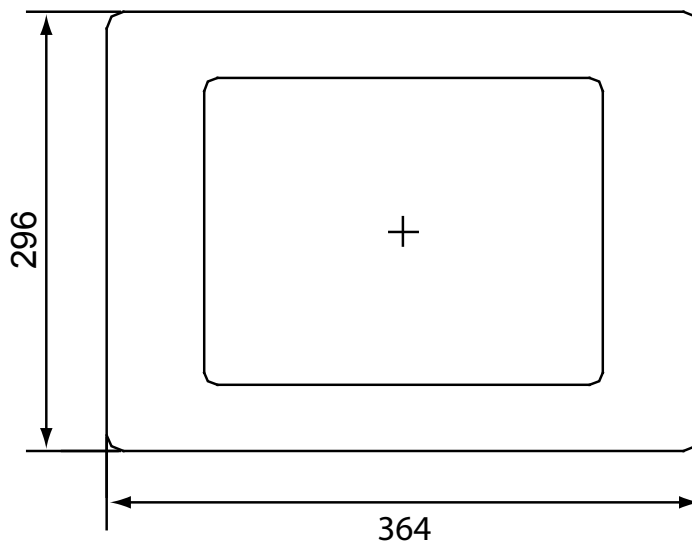
Front plate: Width 364.0 mm
 Height 296.0 mm

Aperture size: Width 345.0 mm
 Height 277.0 mm

Depth: 111.5 mm

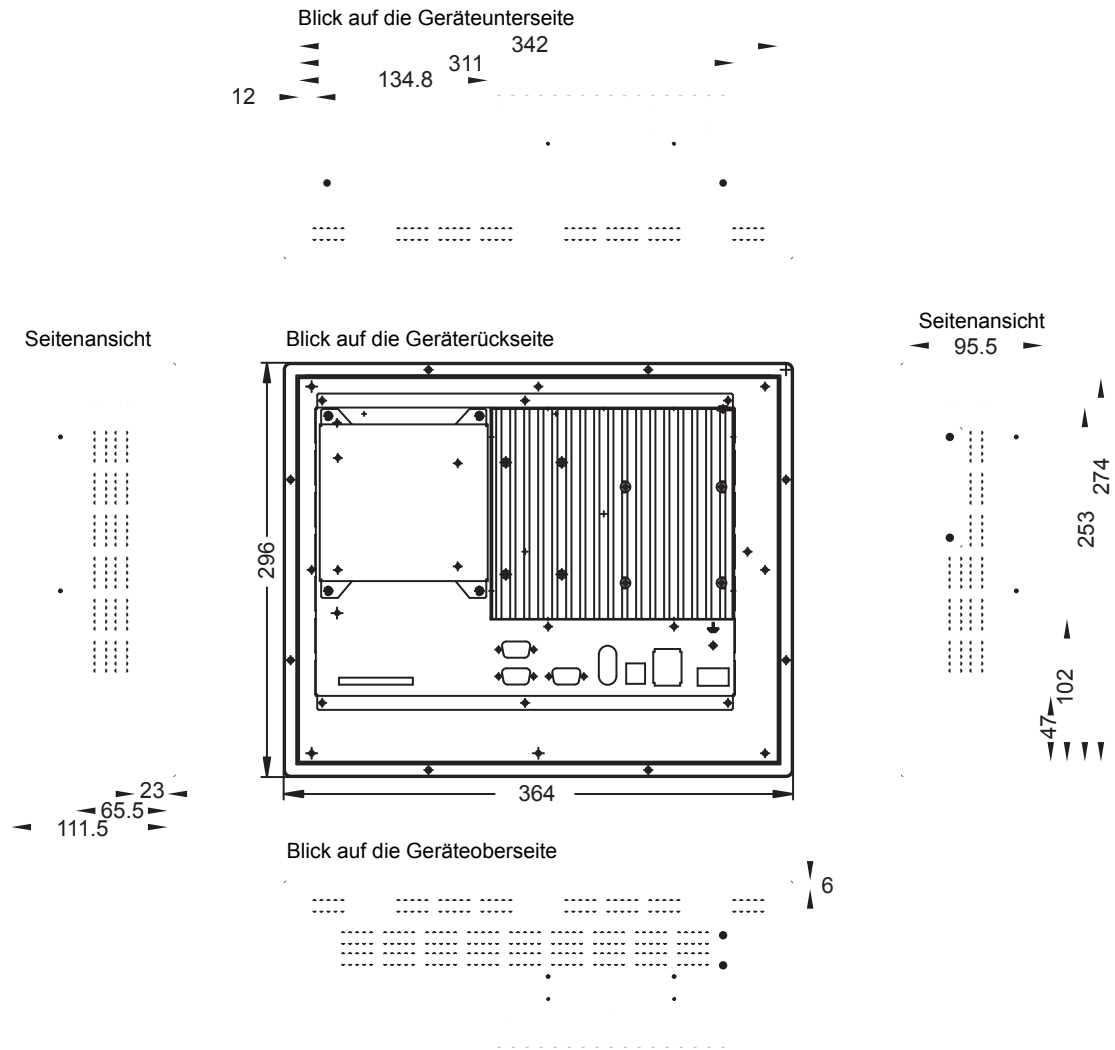
Weight: approx. 6.0 kg

4



Type of fixing:
8 M4 nuts
8 M4 flat washers
8 M4 lock washers

PCD7.D6120TV010 dimensions:



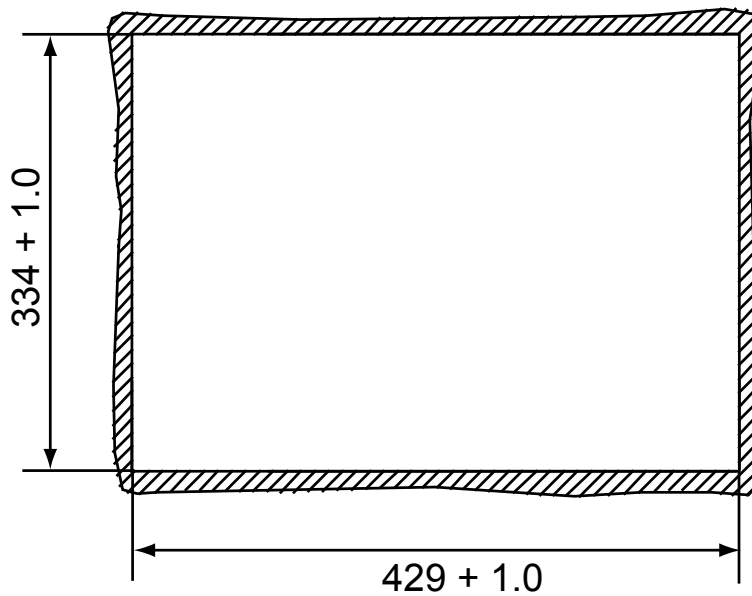
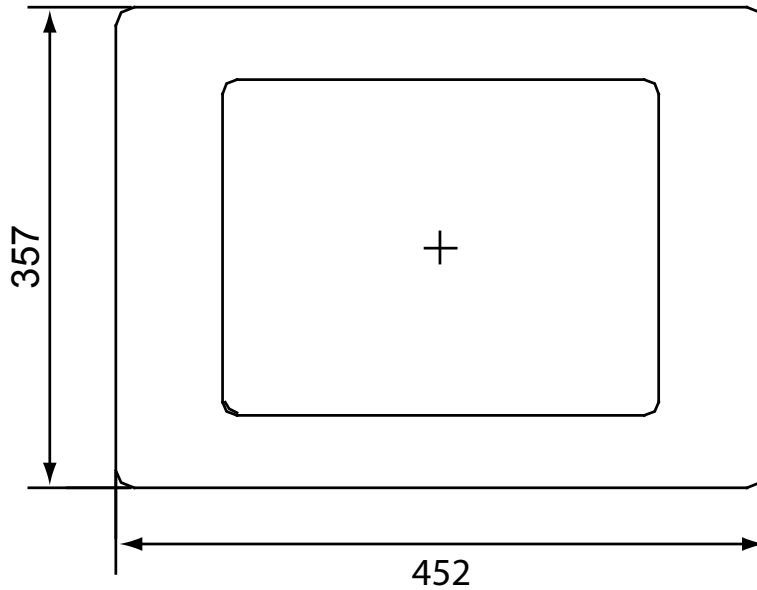
PCD7.D6150TV010 exterior/flush mounting dimensions

Front plate: Width 452.0 mm
 Height 357.0 mm

Aperture size: Width 429.0 mm
 Height 334.0 mm

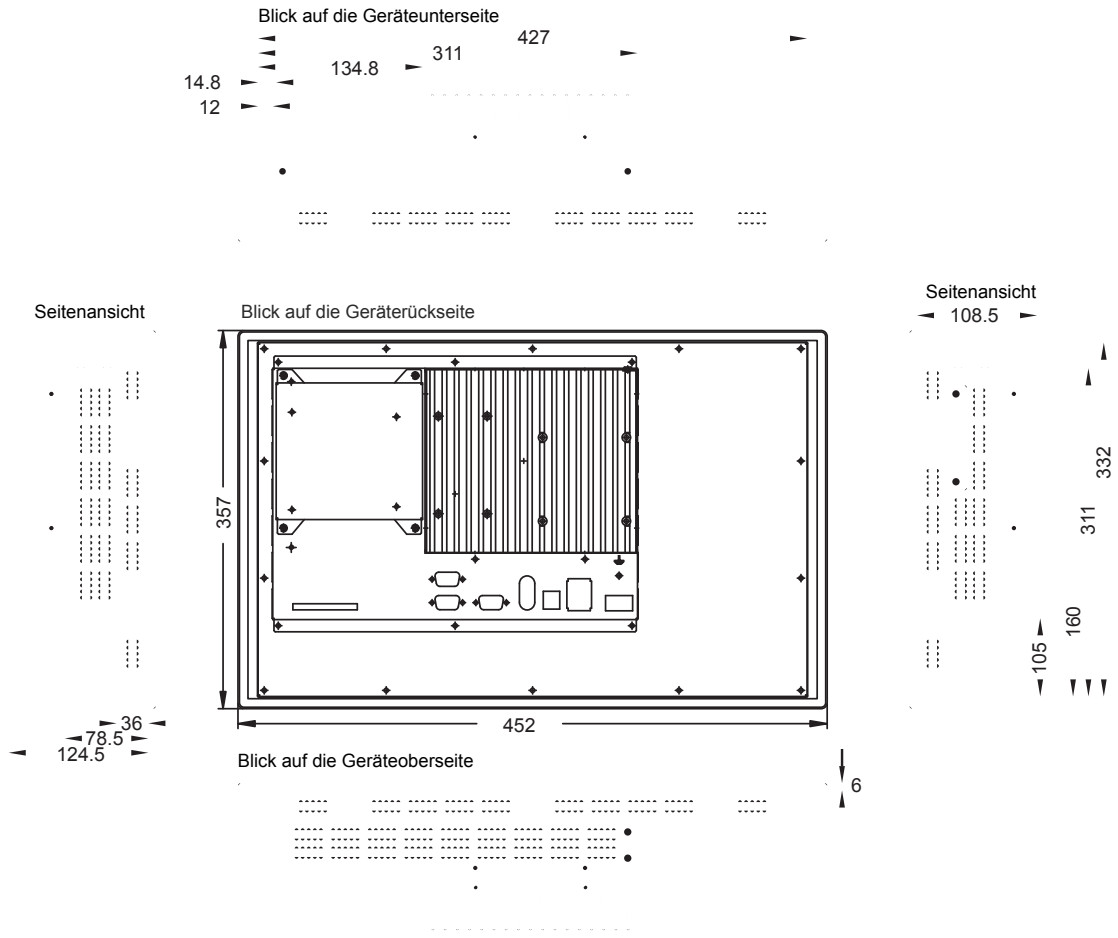
Depth: 124.5 mm

Weight: approx. 7.6 kg



Type of fixing:
 10 M4 nuts
 10 M4 flat washers
 10 M4 lock washers

PCD7.D6150TV010 dimensions:



4.2 Electrical data

Model	PCD7.D6120TV010	PCD7.D6150TV010
Power supply		
Operating voltage	24 V ± 15%, reverse voltage protected	
Current consumption	approx. 2.0 A	
Display unit		
Display diagonal (inches)	12.1	15
Resolution (pixels)	800x600	1024x768
Max. colours	65536	16 million
Background lighting	CFL	CFL
Display technology	TFT	
Service life (50% brightness)	30,000 hrs	50,000 hrs
Touchscreen	resistive	
Operating temperature range	0 - 45° C	
Memory		
Working memory	256 MByte	
Processor type	1 GHz VIA C3	
Chipset	VIA 133T, integrated graphics	
Memory card (external)	128, 256, 512 MB, 1 GB, 2 GB	
Slots	PC 104	
Interfaces		
Serial	2x RS232 for any use	
USB	2x USB 1.1 (max. 0.1 A per port)	
Network	Ethernet 10/100 MBit	
Monitor	1xVGA	

4.3 Environmental conditions

Ambient temperature	
Operation, vertical (upright) installation	0 - 45° C
Storage	-20 - 60° C
Humidity acc. to DIN EN60068-2-3	
Operation	10 - 95%, non-condensing
Storage	10 - 95%, non-condensing
Vibration in operation acc. to DIN EN60068-2-6	1g (10 - 500 Hz), sine Drop from 1 m (in packaging)
Shock in operation acc. to DIN EN60068-2-27	10 g, 16 ms
Protection type acc. to DIN EN60529	Front IP 65, back IP 20
EMC	
Resistance to interference	EN61000-6-2
Noise emission	EN55022

4.4 Interfaces

Compact flash slot

The EPC units are fitted with a CFA standard (type 1) compact flash slot as standard.



Position of compact flash slot

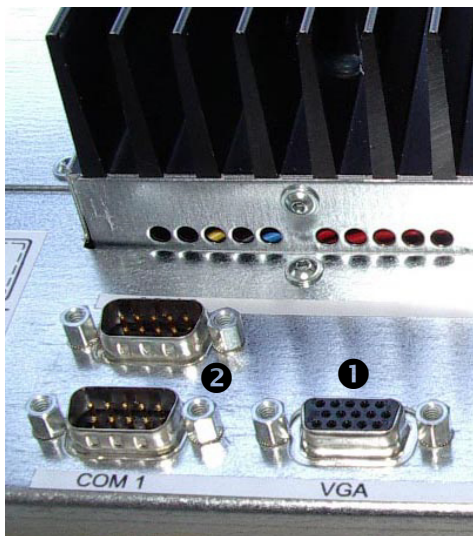
① Ejection lever

4



Only compact flash cards from SANDISK may be used in conjunction with the EPC. The compact flash card should only be changed with the device switched off.

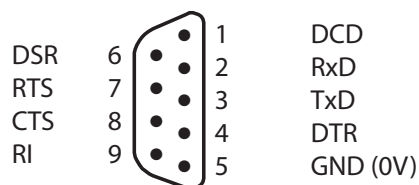
VGA/COM port

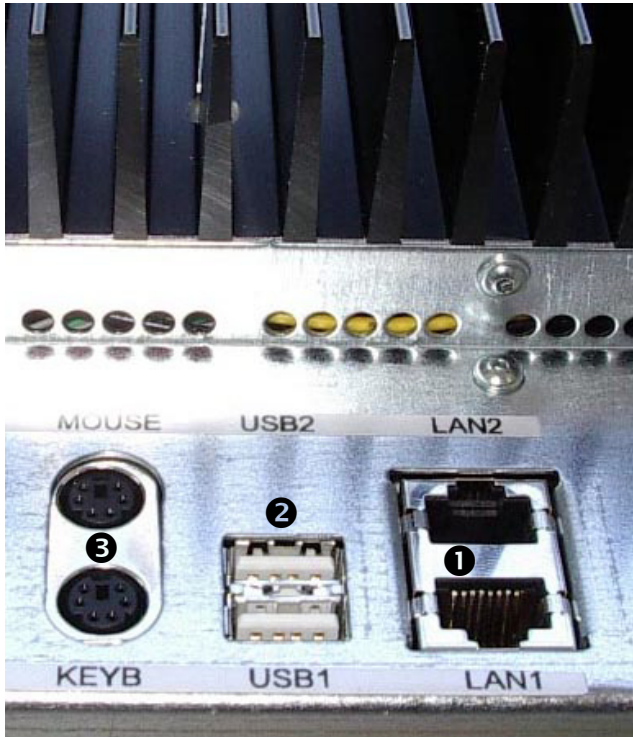


① VGA port

② COM 1 / 2

The serial port is configured to the PC XT/AT standard.



Ethernet, USB, PS/2

4

- ① Ethernet 1 / 2 (RJ45)
- ② USB 1 / 2
- ③ PS2 mouse/keyboard



PS/2 mouse and keyboard may only be plugged or removed with the unit switched off.

Otherwise these input devices will not be recognised by the operating system.

A maximum current of 100 mA may be taken from the two USB ports.

External USB devices that need a higher supply current must provide it themselves.

5 Maintenance and support

5.1 Battery changing

The devices are fitted with an integrated lithium battery for data buffering.

Battery type:	CR2032, 3V / 230mAh
Manufacturer:	e.g. Varta, type 6032
Buffer current:	2µA typ. / 15µA max.
Battery voltage monitoring:	yes (functionality dependent on software)
Battery life (typ.):	5 years

Battery life is basically dependent on the prevailing environmental conditions (operating temperature, switch-on/switch-off time, humidity). The lifetime given here assumes that the device is switched on regularly (several times a week / at least 1500 hours a year).

The battery should only be changed by trained specialists. ESD protective measures should be observed.

Before changing the battery, the device should be disconnected from the power supply.

Push the battery contacts back with a plastic object (e.g. touch stylus) until the battery pops out of the holder. Remove the battery. Insert new battery into the battery holder and clip in place. The positive pole of the battery must point upwards / be visible.



When the battery is changed, the real-time clock data will be lost.

Do not short-circuit the battery contacts. Risk of explosion. Battery should only be replaced with the same type from the same manufacturer.

Lithium batteries are hazardous waste. Used batteries should be disposed of in accordance with national guidelines.

5.2 Replacing background lighting

It is advisable to allow Saia-Burgess Controls AG to replace the tubes for the background lighting. The projected lifetime of the tubes can be found in the Technical Data.

The tubes for the background lighting contain traces of mercury and are hazardous waste. They must be disposed of in accordance with national guidelines.

5.3 Cleaning

Only mild cleaning agents should be used to clean the front of the unit (e.g. neutral soap solution or dilute washing-up liquid). Always use a clean, soft cloth for cleaning.



Do not use any cleaning agents that contain granules (e.g. scouring powder or cleansing milk). These may affect the readability of the display or damage the touch screen.






Do not use acetone or benzene.

5.4 Usage instructions for touch screens

The touch screen should only be operated with the hand or a specially designed touch stylus. Using sharp metal objects (e.g. screwdrivers) may damage the touch screen.

6 Appendix

6.1 Icons

	In manuals, this symbol refers the reader to further information in this manual or other manuals or technical information documents. As a rule there is no direct link to such documents.
	This symbol warns the reader of the risk to components from electrostatic discharges caused by touch. Recommendation: at least touch the Minus of the system (cabinet of PGU connector) before coming in contact with the electronic parts. It is better to use a grounding wrist strap with its cable attached to the Minus of the system.
	This sign accompanies instructions that must always be followed.
	Explanations beside this sign are valid only for the Saia-Burgess PCD Classic series.
	Explanations beside this sign are valid only for the Saia-Burgess PCD xx7 series.

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