From Components to Systems

iPC15

Operating Instruction

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Status: 07/2010

Table of contents

1 Introduction 1
1.1 Safety symbols 1
1.2 Sicherheitshinweise 1

2 Product description 2
2.1 Technical data 2
2.2 Connectors / Interfaces iPC15 3

3 Mounting and operation 5
3.1 Mounting dimensions 5
3.2 Mounting 6
3.3 Switch on iPC15 6

4 Maintenance and cleaning 7

5 EC Declaration of Conformity 8

1 Introduction

1.1 Safety symbols

Attention
This symbol signalizes that there is danger for peoples life und health.

Danger
This symbol signalizes that there is danger for material, machine and environment.

Information
This symbol signalizes important information.

1.2 Sicherheitshinweise

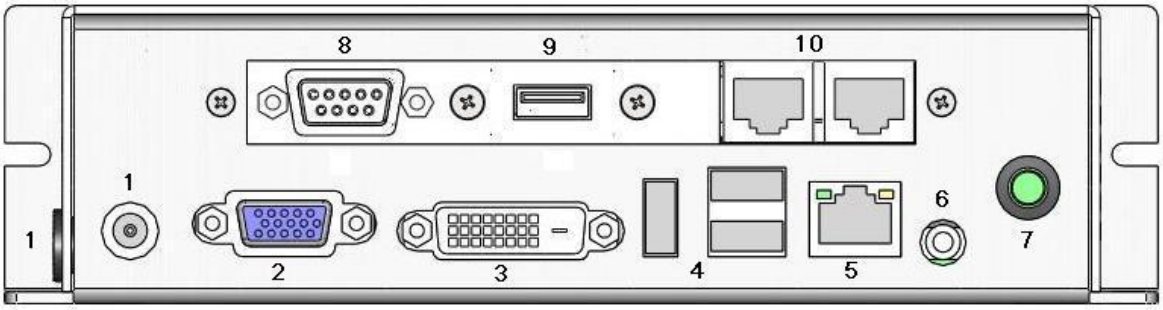
- The Control PC's iPC15 are designed to current technical and recognized rules.
- The device may only be used if it is in correct condition. Any faults have to be eliminated immediately. Neither children nor non-authorized persons are allowed to put the device into operation.
- The device may only be used for the intended use.
- All work on the module must be executed from authorized personal regarding electrical industry rules and accident prevention regulations.
- Assembly and use of operating material has to be according to the standards of conformity declaration. In case of in proper use even the observation the respective rules and standards does not protect against physical damages and damage to property.
- Do not expose the device to high humidity or high vibrations.
- Please take care of the instruction manual. Be sure that all users know the instructions.
- Ignoring the instruction manual can lead to damage, heavy physical damage or to death.

2 Product description

2.1 Technical data

	iPC15
dimensions (L x H x W):	190 x 51,5 x 200 mm
weight:	1,1 kg
ambient temperature:	0°C - 50°C
humidity:	max. 90% not condensing
safety class:	IP20
power supply voltage:	12 VDC/min. 60W (external power supply unit 12V/ 60W)
intended use:	Industrial area / home- office area
form factor:	Mini-ITX
CPU:	Intel® ATOM N270 1,6 GHz
memory (RAM):	DDR2-RAM ≥ 1GB
hard disk:	2,5“ HDD ≥ 160GB, SATA
operating system:	Windows Embedded POSReady 2009
connectors:	1 x VGA (On Board) 3 x USB 2.0 1 x LAN 1GBit 1 x Audio Out 1 x DVI
optional connectors:	1 x CAN control card PCI (iCC10, iCC20) 1 x COM port 1 x LPT 1 x SubD9-pin female connector for iBP10 / iBP17

2.2 Connectors / Interfaces iPC15



Nr.	*Schnittstelle*
1	**Connector for power supply 2-pin plug, use with external power supply unit** 12 VDC/60W power supply voltage **2-lead wire (+12VDC yellow / GND black) for power supply, use on control cabinet mounting** 12 VDC/60W power supply voltage **Please note that only one connector is used for power supply.**
2	**VGA** Connector 15-pin VGA monitor
3	**DVI** Connector for DVI monitoring devices
4	**USB ports** 3 x USB 2.0 ports for peripheral USB devices
5	**LAN** 1x RJ45 connector for Ethernet network
6	**Sound-On-Board** connector for sound line out
7	**PC-Start button** Switch On/Off iPC, green lighting signalizes powered state of the computer
8	**Serial Interface COM1, Sub-D9-male (optional variant)** Connector for a serial interface, type RS232
9	**additional USB slot (optional variant)** 1 x USB 2.0 ports for peripheral USB devices

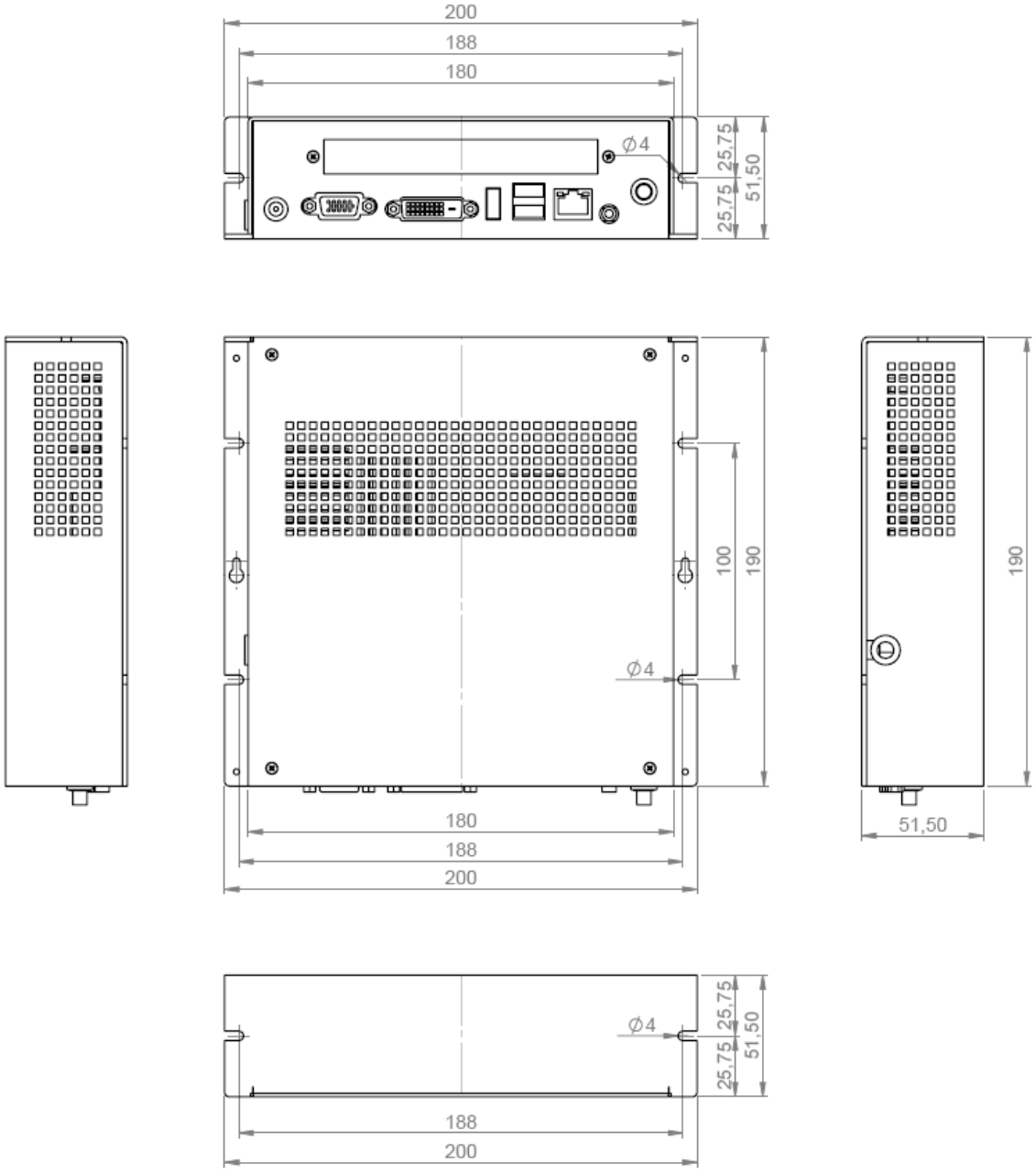
10	***isel*-CAN-interface card iCC10 / iCC20 (optional variant)** Integrated CAN-PCI- interface card with RJ45 connector to communicate with isel CAN bus components (e.g. IMDxx, CAN-IO-XX/XX). info ***The Windows hardware driver for the CAN-PCI card is included on the ProNC/Remote installation medium. Normally the driver files will be installed during initial operation of the iPC15.***
	LPT connector (optional) SubD25-pin socket, printer port
	SubD-9-pin female for connection of iBP10 / iBP17 **(only control cabinet mounting)**

Pin	*Function*	*Description*
1	PWR BTN +	*Connector for Power button +*
2	PWR BTN GND	*Connector for Power button GND*
3	PWR LED +5VDC	*Connector for RUN status LED +*
4	PWR LED GND	*Connector for PWR status LED GND*
5	HDD LED +5VDC	*Connector for HDD activity LED +*
6	+12VDC	*Power supply for LCD monitor +12V*
7	GND	*Power supply for LCD monitor GND*
8	n.u.	
9	HDD LED GND	*Connector for HDD activity LED GND*

3 Mounting and operation

3.1 Mounting dimensions

Dimension drawing iPC15

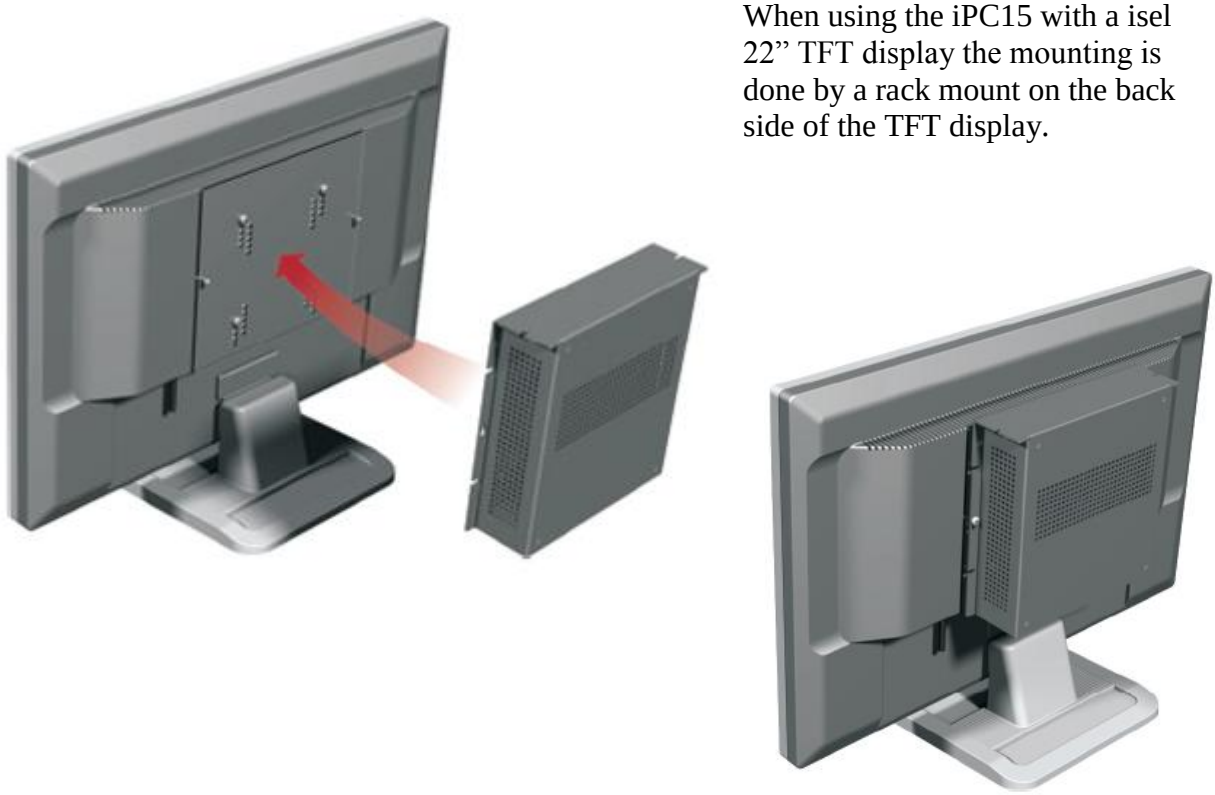


3.2 Mounting

For mounting the iPC15 use the mounting holes on the cover plate.

Using iPC15 <u>with</u> isel 22“ TFT display

When using the iPC15 with a isel 22” TFT display the mounting is done by a rack mount on the back side of the TFT display.



Note that there is enough free zone on the louvers for air circulation. Ignoring this fact causes overheat and potential defect of the iPC

Please avoid extreme environment conditions. Protect the control PC for dust, humidity and heat. Do not cover the louvers!!

3.3 Switch on iPC15

Switch on iPC15 by pressing the PC-start button on the front side of the computer (see also Chapter: 2.2) ore use the contacts of the Sub-D9-pin female connector.

If iPC15 is switched on the PC-start button is green lighted (not on version for control cabinet).

4 Maintenance and cleaning

Maintenance
The computer iPC15 are maintenance free.

Cleaning

Switch off iPC15 and all connected components. Remove the power supply voltage connection.
Use a wet, soft cloth to clean the case. Don’t use cleaning agents or abrasives.
Be sure that no moisture comes into the case.

5 EC Declaration of Conformity

EC - Declaration of Conformity

Der Hersteller
The manufacturer

isel Germany AG
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erklärt hiermit, dass folgendes Produkt
hereby declares that the following product

Geräteart:	**Industrie PC**
Device:	industrial PC
Typ:	**iPC15**
Type:	iPC15
Art.-Nr.:	371064 000x
Product - No.:	371064 000x

mit den Vorschriften folgender Europäischer Richtlinien übereinstimmt:
complies with the requirements of the European Directives*:*

EG-Richtlinie 2004/108/EG *EC-Directive 2004/108/EC*	EMV Richtlinie *EMC directive*
EG-Richtlinie 73/23/EWG *EC-Directive 73/23/ECC*	Niederspannungsrichtlinie *low voltage directive*

Folgende harmonisierte Normen wurden angewandt:
Following harmonized standards have been applied:

EN 61000-6-2:2005	EMV - Fachgrundnorm - Störfestigkeit für Industriebereich *EMC - Generic standards - Immunity for industrial environments*
EN 61000-4-2:2007	EMV - Prüf- und Messverfahren - Prüfung der Störfestigkeit gegen Entladung statischer Elektrizität (ESD) *EMC - Testing and measurement techniques; Electrostatic discharge immunity test*
EN 61000-4-4:2004	EMV - Prüf- und Messverfahren - Prüfung der Störfestigkeit gegen schnelle transiente elektrische Störgrößen (Burst) *EMC - Testing and measurement techniques - Electrical fast transient/burst immunity test*
EN 61000-4-5:2006	EMV - Prüf- und Messverfahren - Prüfung der Störfestigkeit gegen energiereiche Impulse (Surge) *EMC - Testing and measurement techniques - Surge immunity test*
EN 61000-4-11:2004	EMV - Prüf- und Messverfahren - Prüfung der Störfestigkeit gegen Spannungs-einbrüche / Spannungsunterbrechungen *EMC - Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests*
EN 61000-6-4:2007	EMV - Fachgrundnorm - Störaussendung Industriebereich *EMC - Generic standards - Emission standard for industrial environments*
DIN EN 55011:2007	Industrielle, wissenschaftliche und medizinische Hochfrequenzgeräte (ISM-Geräte) - Funkstörungen - Grenzwerte und Messverfahren Industrial scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement

Dermbach, 13.01.2009

Hugo Isert, Vorstandsvorsitzender / chairman