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# DF PROFI II CPCI

Installation Instructions

V1.7

27.02.2017

**Project No.:** **5302**
**Doc-ID.:** DF PROFI II CPCI

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Revision History

| Version | Date | Description |
|---|---|---|
| | | |
| V1.7 | 27.02.2017 | KUNBUS Branding |
| V1.6 | 30.07.2013 | New Declaration of Conformity added |
| V1.5 | 23.09.2009 | Technical data table extended |
| V1.4 | 09.09.2009 | Hot Plugging Note added |
| V1.3 | 04.08.2009 | Document-Adjustment |
| V1.2 | 08.01.2008 | Technical data table extended |
| V1.1 | 14.11.2006 | Extension for using DF Profi II as Slave |
| V1.0 | 13.08.2002 | Initial Version |

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# 1 Installation of the Board

The DF PROFI II CPCI is a plug & play compatible board. The configuration entirely takes place by means of the delivered software or the BIOS of your PC respectively. Thus, no jumpers or DIP-switch adjustments are necessary.

To mount the board, please proceed as follows:

Please see also the operating instructions of your PC.

- Switch off the Compact PCI System and interrupt the power supply
- Select a free CPCI slot.
- Plug the DF board into the determined slot. Pay attention to a proper adjustment of the board in the guidance (avoid canting!).
- Screw down the board.

***Note*:** **When mounting, please follow the safety instructions for electronic modules against electrostatic charge.**

**The DF PROFI II CPCI does not support Hot Plugging. If installing/ uninstalling the board the Compact PCI system must be switched off and the power supply must be interrupted.**

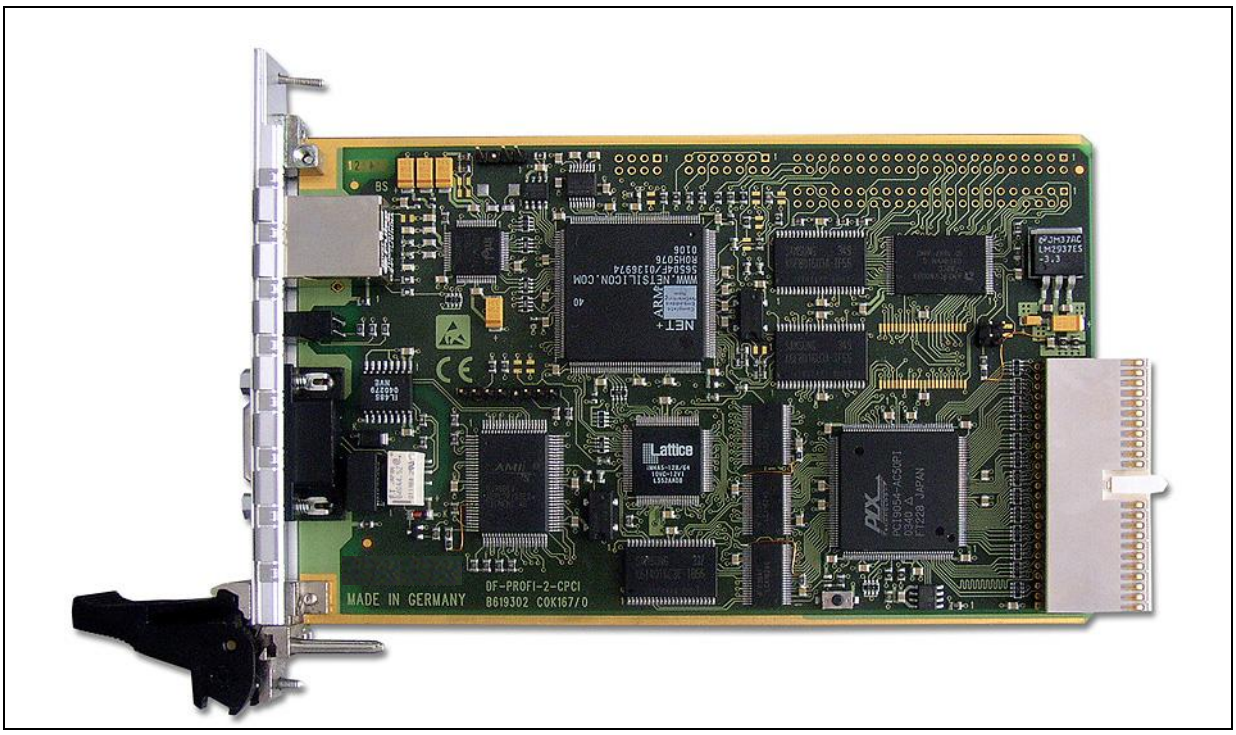



Figure 1: DF PROFI II CPCI Board

# 2 Safety Instructions



**WARNING:** Disregarding this warning may result in damage to equipment and/or serious personal injury. Only qualified personnel may start up and operate this device. According to the safety instructions in this text, qualified personnel are persons who are authorized to start up, to ground, and to mark devices, systems, and equipment according to the standards of safety technology.
In addition, these persons must be familiar with all warning instructions and maintenance measures in this text.



**WARNING:** FNL is designed exclusively for PELV operation according to EN 60950 / EN 60204 / VDE 0805-1. Only protective extra-low voltages according to the defined standards may be used to supply and connect the alarm contact.



**Shielding**
The shielding ground of the connected twisted pair cables is electrically connected to the female connector. When connecting network segments, avoid ground loops, potential transfers, and voltage equalization currents via the braided shield.



**NOTE: Electrostatic discharge!**
The device contains components that can be damaged or destroyed by electrostatic discharge. When handling the device, observe the necessary safety precautions against electrostatic discharge (ESD), in accordance with EN 61340-5-1 and EN 61340-5-2, as well as IEC 61340-5-1 and IEC 61340-5-2.



**Housing**
Only staff authorized by KUNBUS is permitted to open the housing.

# 3 Pin Assignment

| Pin Number | Signal | Function | Direction |
|---|---|---|---|
| 1 | - | shielding | |
| 3 | RxD/TxD-P | Data+ | Input/Output |
| 5 | 0V (potential free 80 mA) | Feeding of bus terminator | Input |
| 6 | 5V (potential free 80 mA) | Feeding of bus terminator | Output |
| 8 | RxD/TxD-N | Data- | Input/Output |

Table 1: Pin Assignment

*Remark:* To assure correct operation of the PROFIBUS, a terminating resistor must be mounted at each bus end (Purchase No.: 4000-7-002-H).

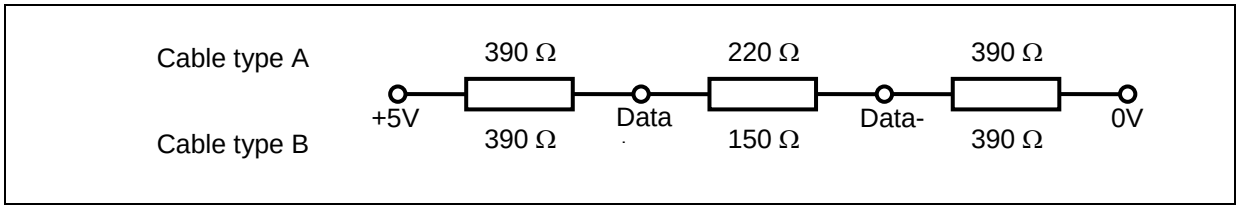



Figure 2: PROFIBUS Terminator

# 4 Description of the LEDs

Green LED:

On: Firmware loaded and started

Off: Firmware not loaded

Yellow LED:

On: PROFIBUS started

Off: PROFIBUS stopped

Red LED:

On: PROFIBUS failure (min. one slave not connected to the bus or with external diagnosis)

Off: No PROFIBUS failure

# 5 Technical Data

| | |
|---|---|
| Processor | Net+Arm 40, 33 MHz |
| PROFIBUS Controller | ASPC2, 48 MHz |
| Memory | 1 Mbyte SRAM<br>2 Mbyte Flash Type Memory |
| PCI Interfaces | 32 Bit (supports both 5 V and 3.3 V) |
| PROFIBUS Interfaces | 1 * Sub-D 9 pins |
| Interface Physics | RS485 (isolated) |
| PROFIBUS Data Rates | 9600 Bit/s - 12000 KBit/s |
| Data Size of Process Image | max. 8 KByte |
| PROFIBUS Isolation Voltage | 500 VDC |
| Power Consumption | +5 V / 1100 mA |
| Ambient Temperature Range | 0 - 55 °C |
| Dimensions | 160 mm * 100 mm |

Table 2: Technical Data

# 6 Declaration of Conformity

KUNBUS
industrial communication

## EC Declaration of Conformity

We herewith declare that the product

DF PROFI II CPCI

complies with the requirements laid down in the Directives and/or Regulations listed overleaf.

1. The object of this declaration is the product as described in section II.
2. The assessment of compliance of this product with regulations identified in section III has been carried out in accordance with procedures defined in section VI.

This declaration is issued under the sole responsibility of KUNBUS GmbH. I declare on behalf of the Management of KUNBUS GmbH that the product described in section II has been assessed to

- meet the essential requirements of the regulatory provisions identified in section III, and
- considered in isolation, conform with the harmonized and other standards identified in section IV, and
- therefore, can be labelled with the CE mark.

(Joachim Kurpat, Head of Product Management)

Ettlingen, this 02.01.2017

ID: DoC-DF-PROFI-II-CPCI-0117-RoHS page 1 of 3

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Figure 3: Declaration of Conformity, page 1

# DF PROFI II CPCI – EC DECLARATION OF CONFORMITY

## I. MANUFACTURER

| | |
|---|---|
| Name: | KUNBUS GmbH |
| Address: | Heerweg 15C<br>73770 Denkendorf<br>Germany |

## II. DESCRIPTION OF THE PRODUCT

| | |
|---|---|
| Product: | DF PROFI II CPCI |

## III. REGULATION REFERENCES

European Requirements:

- Directive 2004/108/EC of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility
- Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- Commission Delegated Directive 2012/50/EU of 10 October 2012 amending, for the purposes of adapting to technical progress, Annex III to Directive 2011/65/EU of the European Parliament and of the Council as regards an exemption for applications containing lead
- Commission Delegated Directive 2012/51/EU of 10 October 2012 amending, for the purposes of adapting to technical progress, Annex III to Directive 2011/65/EU of the European Parliament and of the Council as regards an exemption for applications containing cadmium

## IV. MEANS OF COMPLIANCE

Harmonized Standards:

- EN 55022:2006 + A1:2007
- EN 55024:1998+A1:2001 + A2:2003
- EN 50581:2012

International Standards:

- n/a

National Standards:

- none applied

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Figure 4: Declaration of Conformity, page 2

## DF PROFI II CPCI – EC DECLARATION OF CONFORMITY

### V. STATEMENT TO THE USE OF RESTRICTED SUBSTANCES

The product DF PROFI II CPCI is in conformance with the requirements laid down in the EC Directive 2011/65/EU (RoHS Directive) Articles 4 and 7.

| | | |
|---|---|---|
| **The directive restricts the use of the six substances specified in its Annex II and listed at right up to the maximum concentration values by weight of homogeneous materials:** | • Lead (Pb) | 0.1% |
| | • Mercury (Hg) | 0.1% |
| | • Cadmium (Cd) | 0.01% |
| | • Hexavalent Chromium (Cr6+) | 0.1% |
| | • Polybrominated Biphenyls (PBB) | 0.1% |
| | • Polybrominated Diphenyl Ethers (PBDE) | 0.1% |
| **Applications exempted in line with Annex III** | • None | |

### VI. DESCRIPTION OF THE ASSESSMENT PROCEDURE

**Role of the Manufacturer:**

- The manufacturer was responsible for the conception, design and manufacturing of the DF PROFI II CPCI laid down in the necessary documents, drawings and schemes. The compliance of the constituent with the requirements listed in section III has been examined by means of assessment and, if applicable, measurements using equipment suitable for this purpose.

**Assessment Module(s) used:**

- The Assessment of Conformance has been performed in accordance with Decision No 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a common framework for the marketing of products.
- Module A has been chosen for the assessment.

If applicable:

**Accredited Test Lab:**

MECTRONIC Prüflabor GmbH
Werner-von-Siemens-Str. 2
64319 Pfungstadt
Germany
Accreditation ID: TTI-P-G 075/92-01

**Role of the Test Lab:**

The Test Lab performed all measurements necessary to state conformance with the EMC directive 89/336/EG. The results are recorded in test report P041386 dated 06.12.2004.

The changes of the DIN EN 55024: 2003-10 and DIN EN 55022: 2007-04 are minor changes in the test and measurement setup and will not affect the test results.

According to DIN EN 55022:2006+A1:2007, chapter 6.2, the radiated emissions RF test is still valid.

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Figure 5: Declaration of Conformity, page 3

Final Page!

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